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!!AA_SEQUENCE 1.0
P1;I49056 - bcl-x long - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 28-Jul-2003
C;Accession: I49056; S52866
R;Fang, W.; Rivard, J.J.; Mueller, D.L.; Behrens, T.W.
J. Immunol. 153, 4388-4398, 1994
A;Title: Cloning and molecular characterization of mouse bcl-x in B and T
 lymphocytes.
A;Reference number: I49055; MUID:95052604; PMID:7963517
A;Accession: I49056
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-233 <RES>
A;Cross-references: EMBL:U10101; NID:g506647; PIDN:AAA82173.1; PID:g506648
R;Kamesaki, H.; Michaud, G.Y.; Takatsu, K.; Okuma, M.
submitted to the EMBL Data Library, November 1994
A;Description: IL-5 inhibits anti-IgM-induced apoptosis in an immature B cell
 line through inductin of bcl-Xl.
A;Reference number: S52866
A;Accession: S52866
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-233 <KAM>
A;Cross-references: EMBL:X83574; NID:g695622; PIDN:CAA58557.1; PID:g695623
C;Superfamily: bcl apoptosis regulator, inhibitory type

   I49056  Length: 233  May 13, 2004 16:51  Type: P  Check: 5739  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
P1;B47537 - apoptosis regulator bcl-xL - human
N;Alternate names: bcl-2-related protein
N;Contains: apoptosis regulator bcl-xS
C;Species: Homo sapiens (man)
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 28-Jul-2003
C;Accession: B47537; C47537
R;Boise, L.H.; Gonzalez-Garcia, M.; Postema, C.E.; Ding, L.; Lindsten, T.;
 Turka, L.A.; Mao, X.; Nunez, G.; Thompson, C.B.
Cell 74, 597-608, 1993
A;Title: bcl-x, a bcl-2-related gene that functions as a dominant regulator of
 apoptotic cell death.
A;Reference number: A47537; MUID:93364977; PMID:8358789
A;Accession: B47537
A;Status: nucleic acid sequence not shown; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-233 <BOI>
A;Cross-references: GB:L20121; NID:g510900; PIDN:CAA80661.1; PID:g510901
A;Accession: C47537
A;Status: nucleic acid sequence not shown; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-69,'G',71-125,189-233 <BO2>
A;Cross-references: GB:L20122; NID:g623236; PIDN:CAA80662.1; PID:g623237
C;Genetics:
A;Gene: GDB:BCL2L
A;Cross-references: GDB:228079
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: alternative splicing; apoptosis
F;1-233/Product: apoptosis regulator bcl-xL #status predicted <MAT>
F;1-125,189-233/Product: apoptosis regulator bcl-xS #status predicted <MA2>

   B47537  Length: 233  May 13, 2004 16:51  Type: P  Check: 5340  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

      51  INGNPSWHLA DSPAVNGATA HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
P1;I49057 - bcl-x transmembrane deleted - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 28-Jul-2003
C;Accession: I49057
R;Fang, W.; Rivard, J.J.; Mueller, D.L.; Behrens, T.W.
J. Immunol. 153, 4388-4398, 1994
A;Title: Cloning and molecular characterization of mouse bcl-x in B and T
 lymphocytes.
A;Reference number: I49055; MUID:95052604; PMID:7963517
A;Accession: I49057
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-214 <RES>
A;Cross-references: EMBL:U10102; NID:g506649; PIDN:AAA82174.1; PID:g506650
C;Genetics:
A;Gene: bcl-x-long
C;Superfamily: bcl apoptosis regulator, inhibitory type

   I49057  Length: 214  May 13, 2004 16:51  Type: P  Check: 9730  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDGHDCGWC

     201  GSAGLTLQSE VTRH

!!AA_SEQUENCE 1.0
P1;I67431 - BCL-X-Long - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 28-Jul-2003
C;Accession: I67431
R;Tilly, J.L.; Tilly, K.I.; Kenton, M.L.; Johnson, A.L.
Endocrinology 136, 232-241, 1995
A;Title: Expression of members of the bcl-2 gene family in the immature rat
 ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell
 apoptosis is associated with decreased bax and constitutive bcl-2 and bcl-xlong
 messenger ribonucleic acid levels.
A;Reference number: I53295; MUID:95129487; PMID:7828536
A;Accession: I67431
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-233 <RES>
A;Cross-references: EMBL:U34963; NID:g1004376; PIDN:AAA77686.1; PID:g1004377
C;Superfamily: bcl apoptosis regulator, inhibitory type

   I67431  Length: 233  May 13, 2004 16:51  Type: P  Check: 8310  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV LPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTVY QSFEQVVNEL FRDGVNWGRI VASSSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNTA

     201  PESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
P1;S51761 - BCL-X protein - rat
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-May-1995 #sequence_revision 01-Sep-1995 #text_change 28-Jul-2003
C;Accession: S51761; S51762
R;Michaelidis, T.M.
submitted to the EMBL Data Library, November 1994
A;Reference number: S51761
A;Accession: S51761
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-233 <MIC>
A;Cross-references: EMBL:X82537; NID:g607176; PIDN:CAA57886.1; PID:g607177
A;Experimental source: embryonic; brain
A;Accession: S51762
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-125,189-233 <MI2>
A;Cross-references: EMBL:X82537; NID:g607176; PIDN:CAA57887.1; PID:g607178
A;Experimental source: embryonic; brain
A;Note: smaller form due to splicing
C;Genetics:
A;Introns: 125/3
C;Superfamily: bcl apoptosis regulator, inhibitory type

S51761 Length: 233 May 13, 2004 16:51 Type: P Check: 6378 ..

1 MSQSNQELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
F1;I67435 - gene bcl-xshort protein - rat (fragment)
C;Species: Rattus sp. (rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 28-Jul-2003
C;Accession: I67435
R;Tilly, J.L.; Tilly, K.I.; Kenton, M.L.; Johnson, A.L.
Endocrinology 136, 232-241, 1995
A;Title: Expression of members of the bcl-2 gene family in the immature rat ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell apoptosis is associated with decreased bax and constitutive bcl-2 and bcl-xlong messenger ribonucleic acid levels.
A;Reference number: I53295; MUID:95129487; PMID:7828536
A;Accession: I67435
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-176 <RES>
A;Cross-references: GB:S78284; NID:g998483; PIDN:AAC60702.1; PID:g998484
C;Genetics:
A;Gene: bcl-x
C;Superfamily: bcl apoptosis regulator, inhibitory type

I67435 Length: 176 May 13, 2004 16:51 Type: P Check: 9781 ..

1 PISIIKMSQS NRELVVDFLS YKLSQKGYSW SQFSDVEENR TEAPEETEPE

51 RETPSAINGN PSWHLADSPA VNGATGHSSS LDAREVLPMA AVKQALREAG

101 DEFELRYRRA FSDLTSQLHI TPGTVYQSFE QDTFVDLYGN NTAPESRKGQ

151 ERFNRWFLTG MTVAGVVLLG SLFSRK

!!AA_SEQUENCE 1.0
P1;I49055 - bcl-x short - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 28-Jul-2003
C;Accession: I49055
R;Fang, W.; Rivard, J.J.; Mueller, D.L.; Behrens, T.W.
J. Immunol. 153, 4388-4398, 1994
A;Title: Cloning and molecular characterization of mouse bcl-x in B and T lymphocytes.
A;Reference number: I49055; MUID:95052604; PMID:7963517
A;Accession: I49055
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-170 <RES>
A;Cross-references: EMBL:U10100; NID:g506645; PIDN:AAA82172.1; PID:g506646
C;Genetics:
A;Gene: bcl-x
C;Superfamily: bcl apoptosis regulator, inhibitory type

I49055 Length: 170 May 13, 2004 16:51 Type: P Check: 4157 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQDTFVD LYGNNAAAES RKGQERFNRW

151 FLTGMTVAGV VLLGSLFSRK

!!AA_SEQUENCE 1.0
P1;A47537 - apoptosis regulator bcl-x - chicken
C;Species: Gallus gallus (chicken)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 28-Jul-2003
C;Accession: A47537
R;Boise, L.H.; Gonzalez-Garcia, M.; Postema, C.E.; Ding, L.; Lindsten, T.; Turka, L.A.; Mao, X.; Nunez, G.; Thompson, C.B.
Cell 74, 597-608, 1993
A;Title: bcl-x, a bcl-2-related gene that functions as a dominant regulator of apoptotic cell death.
A;Reference number: A47537; MUID:93364977; PMID:8358789
A;Accession: A47537
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-190 <BOI>
A;Cross-references: GB:Z23110; GB:L20120; NID:g510898; PIDN:CAA80657.1; PID:g510899
C;Superfamily: bcl apoptosis regulator, inhibitory type

A47537 Length: 190 May 13, 2004 16:51 Type: P Check: 5509 ..

1 MSSSNRELVI DFVSYKLSQR GHCWSELEEE DENRTDTAAE AEMDSVLNGS

51 PSWHPPAGHV VNGATVHRSS LEVHEIVRAS DVRQALRDAG DEFELRYRRA

101 FSDLTSQLHI TPGTAYQSFE QVVNELFHDG VNWGRIVAFF SFGGALCVES

151 VDKEMRVLVG RIVSWMTTYL TDHLDPWIQE NGGWVRTALP

!!AA_SEQUENCE 1.0
P1;JE0203 - apoptosis regulator bcl-x isoform - human
N;Alternate names: h-bcl-xbeta
C;Species: Homo sapiens (man)
C;Date: 21-Aug-1998 #sequence_revision 21-Aug-1998 #text_change 28-Jul-2003
C;Accession: JE0203
R;Ban, J.; Eckhart, L.; Weninger, W.; Mildner, M.; Tschachler, E.
Biochem. Biophys. Res. Commun. 248, 147-152, 1998
A;Title: Identification of a human cDNA encoding a novel bcl-x isoform.
A;Reference number: JE0203; MUID:98340865; PMID:9675101
A;Accession: JE0203
A;Molecule type: mRNA
A;Residues: 1-227 <BAN>
A;Cross-references: GB:U72398; NID:g1622940; PIDN:AAB17354.1; PID:g1622941
C;Genetics:
A;Gene: bcl-x
A;Map position: 20
C;Superfamily: bcl apoptosis regulator, inhibitory type

JE0203 Length: 227 May 13, 2004 16:51 Type: P Check: 864 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

```
 51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR
101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL
151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWVR TKPLVCPFSL
201  ASGQRSPTAL LLYLFLLCWV IVGDVDS
```

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!!AA_SEQUENCE 1.0
ID   ATP8_LAMPA     STANDARD;      PRT;    67 AA.
AC   Q9MEI6;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   ATP synthase protein 8 (EC 3.6.3.14) (ATPase subunit 8) (A6L).
GN   MTATP8 OR ATP8.
OS   Lama guanicoe pacos (Alpaca).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Tylopoda; Camelidae; Lama.
OX   NCBI_TaxID=30538;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Ursing B.M., Slack K.E., Arnason U.;
RT   "Subordinal artiodactyl relationships in the light of phylogenetic
RT   analysis of 12 mitochondrial protein-coding genes.";
RL   Zool. Scr. 29:83-88(2000).
CC   -!- FUNCTION: This is one of the chains of the nonenzymatic component
CC       (CF(0) subunit) of the mitochondrial ATPase complex.
CC   -!- CATALYTIC ACTIVITY: ATP + H(2)O + H(+)(In) = ADP + phosphate +
CC       H(+)(Out).
CC   -!- SUBCELLULAR LOCATION: Membrane-bound.
CC   -!- SIMILARITY: Belongs to the ATPase protein 8 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; Y19184; CAC00506.1; -.
DR   InterPro; IPR001421; ATPase8_mit.
DR   InterPro; IPR003238; Mamm_mATPase8.
DR   Pfam; PF00895; ATP-synt_8; 1.
DR   ProDom; PD001090; Mamm_mATPase8; 1.
KW   Hydrogen ion transport; CF(0); Mitochondrion; Transmembrane.
FT   TRANSMEM       8     24       POTENTIAL.
SQ   SEQUENCE   67 AA;  8124 MW;  4445FD0EECC1A7A9 CRC64;

  ATP8_LAMPA  Length: 67  May 13, 2004 16:47  Type: P  Check: 3598  ..

       1  MPQLDTSTWF ITILSMLMTL FILFQLKLSK HIYYPTPEPK FSKTHKQNTP

      51  WETKWKKIYL PLLLPQQ

!!AA_SEQUENCE 1.0
ID   BCLW_HUMAN     STANDARD;      PRT;   193 AA.
AC   Q92843;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-W (Bcl-2-like 2 protein).
GN   BCL2L2 OR BCLW OR KIAA0271.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96358615; PubMed=8761287;
RA   Gibson L., Holmgreen S.P., Huang D.C., Bernard O., Copeland N.G.,
RA   Jenkins N.A., Sutherland G.R., Baker E., Adams J.M., Cory S.;
RT   "bcl-w, a novel member of the bcl-2 family, promotes cell survival.";
RL   Oncogene 13:665-675(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=97191544; PubMed=9039502;
RA   Nagase T., Seki N., Ishikawa K.-I., Ohira M., Kawarabayasi Y.,
RA   Ohara O., Tanaka A., Kotani H., Miyajima N., Nomura N.;
RT   "Prediction of the coding sequences of unidentified human genes. VI.
RT   The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by
RT   analysis of cDNA clones from cell line KG-1 and brain.";
RL   DNA Res. 3:321-329(1996).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: Promotes cell survival.
CC   -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC   -!- TISSUE SPECIFICITY: Expressed in almost all myeloid cell lines and
CC       in a wide range of tissues, with highest levels in brain, colon,
CC       and salivary gland.
CC   -!- DOMAIN: BH4 domain seems to be involved in the anti-apoptotic
CC       function.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U59747; AAB09055.1; -.
DR   EMBL; D87461; BAA19666.1; -.
DR   EMBL; BC021198; AAH21198.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   Genew; HGNC:995; BCL2L2.
DR   MIM; 601931; -.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; TAS.
DR   GO; GO:0006916; P:anti-apoptosis; TAS.
DR   GO; GO:0007283; P:spermatogenesis; TAS.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis.
FT   DOMAIN        9     29       BH4.
FT   DOMAIN       85    104       BH1.
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FT   DOMAIN      136    151       BH2.
SQ   SEQUENCE   193 AA;  20774 MW;  3792243A50281761 CRC64;

 BCLW_HUMAN  Length: 193  May 13, 2004 16:47  Type: P  Check: 9619  ..

       1  MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEPETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   BCLW_MOUSE     STANDARD;      PRT;   193 AA.
AC   P70345;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-W (Bcl-2-like 2 protein).
GN   BCL2L2 OR BCLW.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96358615; PubMed=8761287;
RA   Gibson L., Holmgreen S.P., Huang D.C., Bernard O., Copeland N.G.,
RA   Jenkins N.A., Sutherland G.R., Baker E., Adams J.M., Cory S.;
RT   "bcl-w, a novel member of the bcl-2 family, promotes cell survival.";
RL   Oncogene 13:665-675(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/10J;
RX   MEDLINE=98160183; PubMed=9500547;
RA   Ross A.J., Waymire K.G., Moss J.E., Parlow A.F., Skinner M.K.,
RA   Russell L.D., Macgregor G.R.;
RT   "Testicular degeneration in Bclw-deficient mice.";
RL   Nat. Genet. 18:251-256(1998).
CC   -!- FUNCTION: Promotes cell survival.
CC   -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC   -!- TISSUE SPECIFICITY: Expressed in almost all myeloid cell lines and
CC       in a wide range of tissues, with highest levels in brain, colon,
CC       and salivary gland.
CC   -!- DOMAIN: BH4 domain seems to be involved in the anti-apoptotic
CC       function.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U59746; AAB09056.1; -.
DR   EMBL; AF030769; AAB86430.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   MGD; MGI:108052; Bcl2l2.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis.
FT   DOMAIN        9     29       BH4.
FT   DOMAIN       85    104       BH1.
FT   DOMAIN      136    151       BH2.
SQ   SEQUENCE   193 AA;  20790 MW;  36CA185F5945DFB4 CRC64;

 BCLW_MOUSE  Length: 193  May 13, 2004 16:47  Type: P  Check: 9742  ..

       1  MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQDWMVAYL ETRLADWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   BCLX_CHICK     STANDARD;      PRT;   229 AA.
AC   Q07816; Q98908;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BCLX OR BCL-X.
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORM SHORT).
RX   MEDLINE=93364977; PubMed=8358789;
RA   Boise L.H., Gonzalez-Garcia M., Postema C.E., Ding L., Lindsten T.,
RA   Turka L.A., Mao X., Nunez G., Thompson C.B.;
RT   "bcl-x, a bcl-2-related gene that functions as a dominant regulator
RT   of apoptotic cell death.";
RL   Cell 74:597-608(1993).
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORM LONG).
RC   STRAIN=Hubbard White Mountain; TISSUE=Testis;
RX   MEDLINE=97264485; PubMed=9110311;
RA   Vilagrasa X., Mezquita C., Mezquita J.;
RT   "Differential expression of bcl-2 and bcl-x during chicken
RT   spermatogenesis.";
RL   Mol. Reprod. Dev. 47:26-29(1997).
CC   -!- FUNCTION: Dominant regulator of apoptotic cell death. The long
CC       form displays cell death repressor activity, whereas the short
CC       isoform promotes apoptosis (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=Q07816-1; Sequence=Displayed;
CC       Name=Short;
CC         IsoId=Q07816-2; Sequence=VSP_000514;
CC   -!- TISSUE SPECIFICITY: Highest expression in organs with lymphoid
CC       development.
CC   -!- DOMAIN: BH4 domain seems to be involved in the anti-apoptotic
CC       function. Intact BH1 and BH2 domains are required for anti-
CC       apoptotic activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   the European Bioinformatics Institute. There are no restrictions on its
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CC   modified and this statement is not removed.  Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; Z23110; CAA80657.1; -.
DR   EMBL; U26645; AAB07677.1; -.
DR   PIR; A47537; A47537.
DR   HSSP; P53563; 1AF3.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Transmembrane; Alternative splicing.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       82     96       BH3.
FT   DOMAIN      125    144       BH1.
FT   DOMAIN      176    191       BH2.
FT   TRANSMEM    206    223       POTENTIAL.
FT   VARSPLIC    185    229       ERFVDLYGNNAAAELRKGQETFNKWLLTGATVAGVLLLGSL
FT                                LSRK -> VRTALP (in isoform Short).
FT                                /FTId=VSP_000514.
SQ   SEQUENCE   229 AA;  25733 MW;  A97D3A4D04C0E9DA CRC64;

 BCLX_CHICK  Length: 229  May 13, 2004 16:47  Type: P  Check: 7142  ..

       1  MSSSNRELVI DFVSYKLSQR GHCWSELEEE DENRTDTAAE AEMDSVLNGS

      51  PSWHPPAGHV VNGATVHRSS LEVHEIVRAS DVRQALRDAG DEFELRYRRA

     101  FSDLTSQLHI TPGTAYQSFE QVVNELFHDG VNWGRIVAFF SFGGALCVES

     151  VDKEMRVLVG RIVSWMTTYL TDHLDPWIQE NGGWERFVDL YGNNAAAELR

     201  KGQETFNKWL LTGATVAGVL LLGSLLSRK

!!AA_SEQUENCE 1.0
ID   BCLX_HUMAN     STANDARD;      PRT;   233 AA.
AC   Q07817; Q92976;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BCL2L OR BCLX.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(S)).
RX   MEDLINE=93364977; PubMed=8358789;
RA   Boise L.H., Gonzalez-Garcia M., Postema C.E., Ding L., Lindsten T.,
RA   Turka L.A., Mao X., Nunez G., Thompson C.B.;
RT   "bcl-x, a bcl-2-related gene that functions as a dominant regulator
RT   of apoptotic cell death.";
RL   Cell 74:597-608(1993).
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORM X(BETA)).
RA   Inohara N., Ohta S.;
RL   Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A. (ISOFORM X(L)).
RC   TISSUE=Lung;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [4]
RP   MUTAGENESIS OF GLY-138, AND HETERODIMERIZATION.
RX   MEDLINE=95372373; PubMed=7644501;
RA   Sedlak T.W., Oltvai Z.N., Yang E., Wang K., Boise L.H., Thompson C.B.,
RA   Korsmeyer S.J.;
RT   "Multiple Bcl-2 family members demonstrate selective dimerizations
RT   with Bax.";
RL   Proc. Natl. Acad. Sci. U.S.A. 92:7834-7838(1995).
RN   [5]
RP   MUTAGENESIS OF BH1 AND BH2 DOMAINS.
RX   MEDLINE=96170038; PubMed=8596636;
RA   Cheng E.H.-Y., Levine B., Boise L.H., Thompson C.B., Hardwick J.M.,
RA   Korsmeyer S.J.;
RT   "Bax-independent inhibition of apoptosis by Bcl-XL.";
RL   Nature 379:554-556(1996).
RN   [6]
RP   INTERACTION WITH SIVA.
RX   MEDLINE=22008092; PubMed=12011449;
RA   Xue L., Chu F., Cheng Y., Sun X., Borthakur A., Ramarao M., Pandey P.,
RA   Wu M., Schlossman S.F., Prasad K.V.S.;
RT   "Siva-1 binds to and inhibits BCL-X(L)-mediated protection against UV
RT   radiation-induced apoptosis.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:6925-6930(2002).
RN   [7]
RP   STRUCTURE BY NMR OF 1-209.
RX   MEDLINE=97172562; PubMed=9020082;
RA   Sattler M., Liang H., Nettesheim D., Meadows R.P., Harlan J.E.,
RA   Eberstadt M., Yoon H.S., Shuker S.B., Chang B.S., Minn A.J.,
RA   Thompson C.B., Fesik S.W.;
RT   "Structure of Bcl-xL-Bak peptide complex: recognition between
RT   regulators of apoptosis.";
RL   Science 275:983-986(1997).
RN   [8]
RP   X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS), AND STRUCTURE BY NMR OF 1-209.
RX   MEDLINE=96256675; PubMed=8692274;
RA   Muchmore S.W., Sattler M., Liang H., Meadows R.P., Harlan J.E.,
RA   Yoon H.S., Nettesheim D., Chang B.S., Thompson C.B., Wong S.L.,
RA   Ng S.L., Fesik S.W.;
RT   "X-ray and NMR structure of human Bcl-xL, an inhibitor of programmed
RT   cell death.";
RL   Nature 381:335-341(1996).
RN   [9]
RP   CLEAVAGE BY CASPASES, AND MUTAGENESIS OF ASP-61.
RX   MEDLINE=98118550; PubMed=9435230;
RA   Clem R.J., Cheng E.H.-Y., Karp C.L., Kirsch D.G., Ueno K.,
RA   Takahashi A., Kastan M.B., Griffin D.E., Earnshaw W.C., Veliuona M.A.,
RA   Hardwick J.M.;
RT   "Modulation of cell death bx Bcl-xL through caspase interaction.";
RL   Proc. Natl. Acad. Sci. U.S.A. 95:554-559(1998).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
```

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CC       1. Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC       The Bcl-X(S) isoform promotes apoptosis.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2.
CC       Heterodimerization with BAX does not seem to be required for anti-
CC       apoptotic activity. Isoform Bcl-X(L) binds to Siva isoform 1.
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC       Name=Bcl-X(L);
CC         IsoId=Q07817-1; Sequence=Displayed;
CC       Name=Bcl-X(S);
CC         IsoId=Q07817-2; Sequence=VSP_000515;
CC       Name=Bcl-X(beta);
CC         IsoId=Q07817-3; Sequence=VSP_000516;
CC   -!- TISSUE SPECIFICITY: Bcl-X(S) is expressed at high levels in cells
CC       that undergo a high rate of turnover, such as developing
CC       lymphocytes. In contrast, Bcl-X(L) is found in tissues containing
CC       long-lived postmitotic cells, such as adult brain.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Z23116; CAA80662.1; -.
DR   EMBL; Z23115; CAA80661.1; -.
DR   EMBL; U72398; AAB17354.1; -.
DR   EMBL; BC019307; AAH19307.1; -.
DR   PIR; B47537; B47537.
DR   PIR; JE0203; JE0203.
DR   PDB; 1BXL; 29-OCT-97.
DR   PDB; 1LXL; 21-APR-97.
DR   PDB; 1MAZ; 21-APR-97.
DR   PDB; 1G5J; 07-FEB-01.
DR   PDB; 1G5M; 21-MAR-01.
DR   PDB; 1GJH; 13-JUN-01.
DR   Genew; HGNC:992; BCL2L1.
DR   MIM; 600039; -.
DR   GO; GO:0005739; C:mitochondrion; TAS.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; TAS.
DR   GO; GO:0006916; P:anti-apoptosis; TAS.
DR   GO; GO:0008637; P:apoptotic mitochondrial changes; TAS.
DR   GO; GO:0008634; P:negative regulation of survival gene products; TAS.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Alternative splicing; Transmembrane;
KW   3D-structure.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
FT   SITE         61     62       CLEAVAGE (BY CASPASE-1).
FT   VARSPLIC    126    188       Missing (in isoform Bcl-X(S)).
FT                                /FTId=VSP_000515.
FT   VARSPLIC    189    233       DTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVLLGSL
FT                                FSRK -> VRTKPLVCPFSLASGQRSPTALLLYLFLLCWVI
FT                                VGDVDS (in isoform Bcl-X(beta)).
FT                                /FTId=VSP_000516.
FT   MUTAGEN      61     61       D->A: NO CLEAVAGE BY CASPASE-1 NOR BY
FT                                CASPASE-3.
FT   MUTAGEN     131    133       FRD->VRA: NO HETERODIMERIZATION WITH BAX.
FT   MUTAGEN     135    137       VNW->AIL: LOSS OF ANTI-APOPTOTIC
FT                                ACTIVITY.
FT   MUTAGEN     138    140       GRI->ELN: LOSS OF ANTI-APOPTOTIC
FT                                ACTIVITY.
FT   MUTAGEN     138    138       G->A: NO HETERODIMERIZATION WITH BAX.
FT   MUTAGEN     148    148       G->E: NO HETERODIMERIZATION WITH BAX.
FT   MUTAGEN     156    156       D->A: NO EFECT ON CASPASE-1 CLEAVAGE.
FT   MUTAGEN     176    176       D->A: NO EFECT ON CASPASE-1 CLEAVAGE.
FT   MUTAGEN     188    189       WD->GA: REDUCES ANTI-APOPTOTIC ACTIVITY
FT                                BY ABOUT HALF.
FT   MUTAGEN     189    189       D->A: NO EFECT ON CASPASE-1 CLEAVAGE.
FT   CONFLICT     70     70       G -> A (IN REF. 1; CAA80661).
SQ   SEQUENCE   233 AA;  26049 MW;  E09D3CDD851AE9BE CRC64;

 BCLX_HUMAN  Length: 233  May 13, 2004 16:47  Type: P  Check: 5418  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   BCLX_MOUSE     STANDARD;      PRT;   233 AA.
AC   Q64373; Q60657; Q60658; Q61338;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BCL2L OR BCLX.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=2A4B;
RA   Kamesaki H., Michaud G.Y., Takatsu K., Okuma M.;
RL   Submitted (MAR-1995) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(BETA)).
RC   STRAIN=C57BL/6; TISSUE=Brain;
RX   MEDLINE=95331139; PubMed=7607090;
RA   Gonzalez-Garcia M., Perez-Ballestero R., Ding L., Duan L., Boise L.H.,
RA   Thompson C.B., Nunez G.;
RT   "bcl-XL is the major bcl-x mRNA form expressed during murine
RT   development and its product localizes to mitochondria.";
RL   Development 120:3033-3042(1994).
RN   [3]
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RP   SEQUENCE FROM N.A. (ISOFORMS X(L); X(S) AND X(DELTA-TM)).
RC   TISSUE=Pre-B cell;
RX   MEDLINE=95052604; PubMed=7963517;
RA   Fang W., Rivard J.J., Mueller D.L., Behrens T.W.;
RT   "Cloning and molecular characterization of mouse bcl-x in B and T
RT   lymphocytes.";
RL   J. Immunol. 153:4388-4398(1994).
RN   [4]
RP   SEQUENCE FROM N.A. (ISOFORM X(BETA)).
RC   STRAIN=C57BL/6 X CBA; TISSUE=Thymus;
RX   MEDLINE=98051053; PubMed=9390687;
RA   Yang X.-F., Weber G.F., Cantor H.;
RT   "A novel Bcl-x isoform connected to the T cell receptor regulates
RT   apoptosis in T cells.";
RL   Immunity 7:629-639(1997).
RN   [5]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97289584; PubMed=9144489;
RA   Grillot D.A., Gonzalez-Garcia M., Ekhterae D., Duan L., Inohara N.,
RA   Ohta S., Seldin M.F., Nunez G.;
RT   "Genomic organization, promoter region analysis, and chromosome
RT   localization of the mouse bcl-x gene.";
RL   J. Immunol. 158:4750-4757(1997).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1. Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC       The Bcl-X(S) isoform promotes apoptosis.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2 (By
CC       similarity). Heterodimerization with BAX does not seem to be
CC       required for anti-apoptotic activity (By similarity). Isoform Bcl-
CC       X(L) binds to Siva isoform 1 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope for Bcl-X(L). Cytoplasmic for Bcl-X(delta-TM).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=4;
CC       Name=BCX-X(L);
CC         IsoId=Q64373-1; Sequence=Displayed;
CC       Name=BCL-X(S);
CC         IsoId=Q64373-2; Sequence=VSP_000517;
CC       Name=BCL-X(beta);
CC         IsoId=Q64373-3; Sequence=VSP_000518;
CC       Name=BCL-X(delta-TM);
CC         IsoId=Q64373-4; Sequence=VSP_000519;
CC   -!- TISSUE SPECIFICITY: Widely expressed, with highest levels in the
CC       brain, thymus, bone marrow, and kidney. Bcl-X(L) and Bcl-X(delta-
CC       TM) expression is enhanced in B and T lymphocytes that have been
CC       activated.
CC   -!- DEVELOPMENTAL STAGE: Bcl-X(beta) is expressed in both embryonal
CC       and postnatal tissues, whereas Bcl-X(L) is predominantly found in
CC       postnatal tissues.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis (By
CC       similarity). The cleaved protein, lacking the BH4 domain, has pro-
CC       apoptotic activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X83574; CAA58557.1; -.
DR   EMBL; L35049; AAA51039.1; -.
DR   EMBL; L35048; AAA51040.1; -.
DR   EMBL; U10102; AAA82174.1; -.
DR   EMBL; U10101; AAA82173.1; -.
DR   EMBL; U10100; AAA82172.1; -.
DR   EMBL; U51279; AAC53460.1; -.
DR   EMBL; U78031; AAB96881.1; -.
DR   EMBL; U78030; AAB96881.1; JOINED.
DR   PIR; I49055; I49055.
DR   PIR; I49056; I49056.
DR   PIR; I49057; I49057.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Alternative splicing; Transmembrane.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
FT   VARSPLIC    126    188       Missing (in isoform BCL-X(S)).
FT                                /FTId=VSP_000517.
FT   VARSPLIC    189    233       DTFVDLYGNNAAAESRKGQERFNRWFLTGMTVAGVVLLGSL
FT                                FSRK -> VRTTPLVCPPLACVSLLCEHP (in isoform
FT                                BCL-X(beta)).
FT                                /FTId=VSP_000518.
FT   VARSPLIC    194    233       LYGNNAAAESRKGQERFNRWFLTGMTVAGVVLLGSLFSRK
FT                                -> GHDCGWCGSAGLTLQSEVTRH (in isoform
FT                                BCL-X(delta-TM)).
FT                                /FTId=VSP_000519.
SQ   SEQUENCE   233 AA;  26132 MW;  24D2AC79887E072E CRC64;

 BCLX_MOUSE  Length: 233  May 13, 2004 16:47  Type: P  Check: 5739  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   BCLX_PIG       STANDARD;      PRT;   233 AA.
AC   O77737;
DT   15-JUL-1999 (Rel. 38, Created)
DT   15-JUL-1999 (Rel. 38, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BLC2L OR BCLX.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
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RX   MEDLINE=99171363; PubMed=10072723;
RA   Bartling B., Hoffmann J., Holtz J., Schulz R., Heusch G., Darmer D.;
RT   "Quantification of cardioprotective gene expression in porcine
RT   short-term hibernating myocardium.";
RL   J. Mol. Cell. Cardiol. 31:147-158(1999).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1.Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2 (By
CC       similarity). Heterodimerization with BAX does not seem to be
CC       required for anti-apoptotic activity (By similarity). Isoform Bcl-
CC       X(L) binds to Siva isoform 1 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis (By
CC       similarity). The cleaved protein, lacking the BH4 domain, has pro-
CC       apoptotic activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; AJ001203; CAA04597.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Transmembrane.
FT   DOMAIN        4    24       BH4.
FT   DOMAIN       86   100       BH3.
FT   DOMAIN      129   148       BH1.
FT   DOMAIN      180   195       BH2.
FT   TRANSMEM    210   226       POTENTIAL.
SQ   SEQUENCE   233 AA;  26061 MW;  18BF6FA0441912B2 CRC64;

  BCLX_PIG  Length: 233  May 13, 2004 16:47  Type: P  Check: 5312  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFTDV EENRTEAPEG TESEAETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVLNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIATWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTL AGVVLLGSLF SRK
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!!AA_SEQUENCE 1.0
ID   BCLX_RAT       STANDARD;      PRT;   233 AA.
AC   P53563; P70613; P70614; Q62678; Q62836; Q64087; Q64128;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BLC2L OR BCLX.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(S)).
RC   TISSUE=Brain;
RA   Michaelidis T.M.;
RL   Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RA   Wesselingh S.L., David G.L., Choi S., Veliuona M., Hardwick J.M.;
RL   Submitted (JUN-1995) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(BETA)).
RC   TISSUE=Thymus;
RX   MEDLINE=96278736; PubMed=8662675;
RA   Shiraiwa N., Inohara N., Okada S., Yuzaki M., Shoji S.-I., Ohta S.;
RT   "An additional form of rat Bcl-x, Bcl-xbeta, generated by an
RT   unspliced RNA, promotes apoptosis in promyeloid cells.";
RL   J. Biol. Chem. 271:13258-13265(1996).
RN   [4]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(S)).
RC   STRAIN=Sprague-Dawley; TISSUE=Ovary;
RX   MEDLINE=95129487; PubMed=7828536;
RA   Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
RT   "Expression of members of the bcl-2 gene family in the immature rat
RT   ovary: equine chorionic gonadotropin-mediated inhibition of granulosa
RT   cell apoptosis is associated with decreased bax and constitutive
RT   bcl-2 and bcl-xlong messenger ribonucleic acid levels.";
RL   Endocrinology 136:232-241(1995).
RN   [5]
RP   X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS).
RX   MEDLINE=98010630; PubMed=9346936;
RA   Aritomi M., Kunishima N., Inohara N., Ishibashi Y., Ohta S.,
RA   Morikawa K.;
RT   "Crystal structure of rat Bcl-xL. Implications for the function of
RT   the Bcl-2 protein family.";
RL   J. Biol. Chem. 272:27886-27892(1997).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1. Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC       The Bcl-X(S) and Bcl-X(beta) isoforms promote apoptosis.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2 (By
CC       similarity). Heterodimerization with BAX does not seem to be
CC       required for anti-apoptotic activity (By similarity). Isoform Bcl-
CC       X(L) binds to Siva isoform 1 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC       Name=Bcl-X(L);
CC         IsoId=P53563-1; Sequence=Displayed;
CC       Name=Bcl-X(S);
CC         IsoId=P53563-2; Sequence=VSP_000520;
CC       Name=Bcl-X(beta);
CC         IsoId=P53563-3; Sequence=VSP_000521;
CC   -!- TISSUE SPECIFICITY: Expressed in most tissues. Bcl-X(beta) is
CC       specifically expressed in cerebellum, heart, and thymus. In the
CC       ovary, the predominant form is Bcl-X(L), with a small but
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CC       detectable level of Bcl-X(S).
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X82537; CAA57886.1; -.
DR   EMBL; X82537; CAA57887.1; -.
DR   EMBL; U10579; AAA19257.1; -.
DR   EMBL; U72350; AAB17353.1; -.
DR   EMBL; U72349; AAB17352.1; -.
DR   EMBL; U34963; AAA77686.1; -.
DR   EMBL; S76513; AAC60701.2; ALT_INIT.
DR   EMBL; S78284; AAC60702.1; -.
DR   PIR; I67431; I67431.
DR   PIR; S51761; S51761.
DR   PDB; 1AF3; 07-JUL-97.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Alternative splicing; Transmembrane;
KW   3D-structure.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
FT   VARSPLIC    126    188       Missing (in isoform Bcl-X(S)).
FT                                /FTId=VSP_000520.
FT   VARSPLIC    189    233       DTFVDLYGNNAAAESRKGQERFNRWFLTGMTVAGVVLLGSL
FT                                FSRK -> VRTTPLVCPPLVCLSSVEIPNCPFWSPGMVVED
FT                                IDYSGDIPGLL (in isoform Bcl-X(beta)).
FT                                /FTId=VSP_000521.
FT   CONFLICT      6      6       R -> Q (IN REF. 1).
FT   CONFLICT     12     12       F -> S (IN REF. 2).
FT   CONFLICT     64     64       A -> E (IN REF. 2).
FT   CONFLICT     81     81       I -> L (IN REF. 4).
FT   CONFLICT    119    119       A -> V (IN REF. 4).
FT   CONFLICT    143    144       FF -> SS (IN REF. 4).
FT   CONFLICT    199    199       A -> T (IN REF. 4).
FT   CONFLICT    201    201       A -> P (IN REF. 4).
FT   HELIX         4     19
FT   TURN         20     21
FT   TURN         25     28
FT   TURN         82     83
FT   HELIX        84    100
FT   HELIX       106    112
FT   TURN        116    117
FT   HELIX       120    127
FT   HELIX       128    131
FT   TURN        132    133
FT   HELIX       137    156
FT   TURN        157    158
FT   TURN        160    161
FT   HELIX       162    177
FT   TURN        178    178
FT   HELIX       179    184
FT   TURN        185    186
FT   HELIX       187    195
SQ   SEQUENCE   233 AA;  26158 MW;  2B62B6C63864BC8F CRC64;

  BCLX_RAT  Length: 233  May 13, 2004 16:47  Type: P  Check: 6384  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   Q9H1R6      PRELIMINARY;      PRT;   188 AA.
AC   Q9H1R6;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   BA243J16.1.1 (BCL2-like 1 (Isoform 1)) (Fragment).
GN   BCL2L1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Brown A.;
RL   Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AL160175; CAC10003.1; -.
DR   HSSP; Q07817; 1LXL.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     188    188
SQ   SEQUENCE   188 AA;  21029 MW;  7074B6095145C324 CRC64;

   Q9H1R6  Length: 188  May 13, 2004 16:47  Type: P  Check: 9114  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGW

!!AA_SEQUENCE 1.0
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ID   Q9H1R5      PRELIMINARY;      PRT;   125 AA.
AC   Q9H1R5;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   BA243J16.1.2 (BCL2-like 1 (Isoform 2)) (Fragment).
GN   BCL2L1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Brown A.;
RL   Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AL160175; CAC10004.1; -.
DR   HSSP; Q07817; 1LXL.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     125    125
SQ   SEQUENCE   125 AA;  13874 MW;  D84C030651475365 CRC64;

   Q9H1R5  Length: 125  May 13, 2004 16:47  Type: P  Check: 7142  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQ

!!AA_SEQUENCE 1.0
ID   Q9N1A2      PRELIMINARY;      PRT;   233 AA.
AC   Q9N1A2;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Anti-apoptotic regulator Bcl-xL.
GN   BCL-XL.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Heart;
RA   Lee T.L., Canty J.M.;
RT   "PCR Cloning of a Porcine bcl-xL cDNA from Heart.";
RL   Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF216205; AAF33212.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26047 MW;  2FA312818B25E17D CRC64;

   Q9N1A2  Length: 233  May 13, 2004 16:47  Type: P  Check: 5442  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFTDV EENRTEAPEG TESEAETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIATWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTL AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   Q9MZS7      PRELIMINARY;      PRT;   233 AA.
AC   Q9MZS7;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x long protein.
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Ovary;
RA   Murray J.F., Dong Y.B., Leigh A.J., Scaramuzzi R.J., Carter N.D.;
RT   "Bcl-x in the sheep ovary.";
RL   Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF164517; AAF89532.1; -.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26134 MW;  012BFA1382762915 CRC64;

   Q9MZS7  Length: 233  May 13, 2004 16:47  Type: P  Check: 6384  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESDMETPSA

      51  INGNPSWHLA DSPAVNGATG HSRSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIATWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   Q8SQ42      PRELIMINARY;      PRT;   233 AA.
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AC   Q8SQ42;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-xl protein.
GN   BCL-XL.
OS   Felis silvestris catus (Cat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Nagafuchi S., Sano J., Kano R., Hasegawa A.;
RT   "Moleculer cloning of feline Bcl-2 family.";
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB080951; BAB85856.2; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26017 MW;  CD17F24FE9D47BC9 CRC64;

    Q8SQ42  Length: 233  May 13, 2004 16:47  Type: P  Check: 5951  ..

        1  MSQSNRELVV DFLSYKLSQK GYSWSRFSDV EENRTEAPEG TESEMETPSA

       51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

      101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

      151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

      201  AESRKGQERS NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   Q9MYW4      PRELIMINARY;      PRT;   233 AA.
AC   Q9MYW4;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-X.
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Knott J.C., Robertson L., James E.R.;
RT   "Rabbit Bcl-X.";
RL   Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY005131; AAF88137.1; -.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  25986 MW;  12F0F30344D53F93 CRC64;

   Q9MYW4  Length: 233  May 13, 2004 16:47  Type: P  Check: 4334  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TGPEMETPSA

      51  INGNPAWHPA DSPAVNGATG HSSSLDAREV IPMTAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEME VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   Q9BDX7      PRELIMINARY;      PRT;   180 AA.
AC   Q9BDX7;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Anti-apoptotic regulator Bcl-xL (Fragment).
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Amills M., Bouzat J.;
RT   "Characterization of the bovine bcl-xL gene and related pseudogenes.";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF245487; AAK31306.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER     180    180
SQ   SEQUENCE   180 AA;  20056 MW;  62C4C0BD0555A9EF CRC64;

    Q9BDX7  Length: 180  May 13, 2004 16:47  Type: P  Check: 248  ..

       1  INGNPSWHLE DSPAVNGAPG HSRSSDAREV IPMAAVKQAL REAGDEFELR

      51  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VASFSFGGAL

     101  CVESVDKEMQ VLVSRIATWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     151  AESRKGQERF NRWFLTGMTV AGVVLLGSLF

!!AA_SEQUENCE 1.0
ID   Q9BDD5      PRELIMINARY;      PRT;   180 AA.
AC   Q9BDD5;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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DE   Anti-apoptotic regulator Bcl-xL (Fragment).
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Amills M., Bouzat J.;
RT   "Characterization of the bovine bcl-xL gene and related pseudogenes.";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF245488; AAK31307.1; -.
DR   EMBL; AF245489; AAK31308.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER     180    180
SQ   SEQUENCE   180 AA;  20062 MW;  95DC436F95DABDA6 CRC64;

   Q9BDD5  Length: 180  May 13, 2004 16:47  Type: P  Check: 9816  ..

       1  INGNPSWHLA DSPAVNGATG HSRSSDAREV IPMAAVKQAL REAGDEFELR

      51  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     101  CVESVDKEMQ VLVSRIATWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     151  AESRKGQERF NRWFLTGMTV AGVVLLGSLF

!!AA_SEQUENCE 1.0
ID   Q9FRD9      PRELIMINARY;      PRT;   323 AA.
AC   Q9FRD9;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Putative peroxidase.
GN   OSJNBA0013M12.15.
OS   Oryza sativa (Rice).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC   Ehrhartoideae; Oryzeae; Oryza.
OX   NCBI_TaxID=4530;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=cv. Nipponbare;
RA   Buell C.R., Yuan Q., Moffat K.S., Hill J.N., Burr P.C., Hsiao J.,
RA   Zismann V., Pai G., Bowman C.L., Fujii C.Y., VanAken S.E.,
RA   Bowman C.L., Craven B., Utterback T.R., Khalak H., Feldblyum T.V.,
RA   Quackenbush J., White O., Salzberg S.L., Fraser C.M.;
RT   "Oryza sativa chromosome 3 BAC OSJNBa0013M12 genomic sequence.";
RL   Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC082644; AAG46133.1; -.
DR   HSSP; P22195; 1SCH.
DR   Gramene; Q9FRD9; -.
DR   GO; GO:0004601; F:peroxidase activity; IEA.
DR   GO; GO:0006979; P:response to oxidative stress; IEA.
DR   InterPro; IPR002016; Peroxidase.
DR   Pfam; PF00141; peroxidase; 1.
DR   PRINTS; PR00458; PEROXIDASE.
DR   PROSITE; PS00435; PEROXIDASE_1; 1.
DR   PROSITE; PS00436; PEROXIDASE_2; 1.
DR   PROSITE; PS50873; PEROXIDASE_4; 1.
KW   Peroxidase.
SQ   SEQUENCE   323 AA;  34851 MW;  D3F83A4099D5950E CRC64;

   Q9FRD9  Length: 323  May 13, 2004 16:47  Type: P  Check: 9869  ..

       1  MAAHTIKLAV AVTCTLLLAA ACSGLEVGYY KKSCPRVETI VREEVKKFVY

      51  KNAGIGAGLI RLLFHDCFVE GCDGSVLLDP TPANPAPEKL SPPNFPSLRG

     101  FEVIDAAKDA VEKACPGVVS CADIVAFAAR DAAYFLSRMR VKINMPAGRF

     151  DGRHSNSSDA LDNLPPPFFN VTELVDIFAT KGLDAEDMVV LSGAHTVGRS

     201  HCSSFVPDRL AVASDIDGGF AGLLRRRCPA NPTTAHDPTV NQDVVTPNAF

     251  DNQYYKNVIA HKVLFTSDAA LLTSPATAKM VSDNANIPGW WEDRFKKAFV

     301  KMAAVDVKNG YQGEIRKNCR VVN

!!AA_SEQUENCE 1.0
ID   Q99N36      PRELIMINARY;      PRT;   219 AA.
AC   Q99N36;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   B-cell leukemia/lymphoma x-gamma (Fragment).
GN   BCLX.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=129/SvJ;
RA   Yang X.-F., Cantor H.;
RT   "Novel cDNA structure and genomic organization of apoptosis regulatory
RT   gene Bcl-x-gamma.";
RL   Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF133279; AAK15454.1; -.
DR   EMBL; AF133281; AAK15454.1; JOINED.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   219 AA;  24224 MW;  EB352EC4CFAA6AF5 CRC64;

   Q99N36  Length: 219  May 13, 2004 16:47  Type: P  Check: 9563  ..

       1  LSQKGYSWSQ FSDVEENRTE APEETEAERE TPSAINGNPS WHLADSPAVN

      51  GATGHSSSLD AREVIPMAAV KQALREAGDE FELRYRRAFS DLTSQLHITP

     101  GTAYQSFEQV VNELFRDGVN WGRIVAFFSF GGALCVESVD KEMQVLVSRI

     151  ASWMATYLND HLEPWIQENG GWGVSGGTPL RSVFRRLVQV PGVAEHVCDP

     201  SLWEVETEGS EVQGPPQLL

!!AA_SEQUENCE 1.0
ID   Q9CYW5      PRELIMINARY;      PRT;   178 AA.
AC   Q9CYW5;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl2-like 2.
GN   BCL2L2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AK013244; BAB28740.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   MGD; MGI:108052; Bcl2l2.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   178 AA;  19147 MW;  E2D4C3F79528E9D7 CRC64;

   Q9CYW5  Length: 178  May 13, 2004 16:47  Type: P  Check: 4788  ..

     1  MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

    51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

   101  VFGAALCAES VNKEMEPLVG QVQDWMVAYL ETRLADWIHS SGGWVRSSQL

   151  LLSASLYKVG LHGKIGPLMG GWGCAGRG

!!AA_SEQUENCE 1.0
ID   O35843      PRELIMINARY;      PRT;   235 AA.
AC   O35843;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x-gamma.
GN   BCL2L.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=B6/CBA; TISSUE=Thymus;
RX   MEDLINE=98051053; PubMed=9390687;
RA   Yang X.-F., Weber G.F., Cantor H.;
RT   "A novel Bcl-x isoform connected to the T cell receptor regulates
RT   apoptosis in T cells.";
RL   Immunity 7:629-639(1997).
DR   EMBL; U51277; AAC53458.1; -.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   235 AA;  26122 MW;  649D914C2D5378F6 CRC64;

   O35843  Length: 235  May 13, 2004 16:47  Type: P  Check: 7920  ..

     1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

    51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

   101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

   151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWGV SGGTPLRSVF

   201  RRLVQVPGVA EHVCDPSLWE VETEGSEVQG PPQLL

!!AA_SEQUENCE 1.0
ID   O35844      PRELIMINARY;      PRT;   233 AA.
AC   O35844;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-xL.
GN   BCL2L.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=B6/CBA; TISSUE=Thymus;
RX   MEDLINE=98051053; PubMed=9390687;
RA   Yang X.-F., Weber G.F., Cantor H.;
RT   "A novel Bcl-x isoform connected to the T cell receptor regulates
RT   apoptosis in T cells.";
RL   Immunity 7:629-639(1997).
DR   EMBL; U51278; AAC53459.1; -.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
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DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26033 MW;  3083F2D8327E072E CRC64;

   O35844  Length: 233  May 13, 2004 16:47  Type: P  Check: 5105  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

     201  AESRKGKEGF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   Q99N35      PRELIMINARY;      PRT;   217 AA.
AC   Q99N35;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   B-cell leukemia/lymphoma x (Fragment).
GN   BCLX.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=129/SvJ;
RA   Yang X.-F., Cantor H.;
RT   "Novel cDNA structure and genomic organization of apoptosis regulatory
RT   gene Bcl-x-gamma.";
RL   Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF133282; AAK15455.1; -.
DR   EMBL; AF133281; AAK15455.1; JOINED.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1       1
SQ   SEQUENCE   217 AA;  24234 MW;  3B5A4E809A7DEF18 CRC64;

   Q99N35  Length: 217  May 13, 2004 16:47  Type: P  Check: 1791  ..

       1  LSQKGYSWSQ FSDVEENRTE APEETEAERE TPSAINGNPS WHLADSPAVN

      51  GATGHSSSLD AREVIPMAAV KQALREAGDE FELRYRRAFS DLTSQLHITP

     101  GTAYQSFEQV VNELFRDGVN WGRIVAFFSF GGALCVESVD KEMQVLVSRI

     151  ASWMATYLND HLEPWIQENG GWDTFVDLYG NNAAAESRKG QERFNRWFLT

     201  GMTVAGVVLL GSLFSRK

!!AA_SEQUENCE 1.0
ID   Q9QWX2      PRELIMINARY;      PRT;   188 AA.
AC   Q9QWX2;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x (Fragment).
GN   BCL2L.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=20350651; PubMed=10894153;
RA   Rucker E.B. III, Dierisseau P., Wagner K.U., Garrett L.,
RA   Wynshaw-Boris A., Flaws J.A., Hennighausen L.;
RT   "Bcl-x and Bax regulate mouse primordial germ cell survival and
RT   apoptosis during embryogenesis.";
RL   Mol. Endocrinol. 14:1038-1052(2000).
DR   EMBL; AF088904; AAC72232.1; -.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     188     188
SQ   SEQUENCE   188 AA;  21126 MW;  4E62F8356D248E52 CRC64;

   Q9QWX2  Length: 188  May 13, 2004 16:47  Type: P  Check: 9457  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEAERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGW

!!AA_SEQUENCE 1.0
ID   Q9WUI5      PRELIMINARY;      PRT;   170 AA.
AC   Q9WUI5;
DT   01-NOV-1999 (TrEMBLrel. 12, Created)
DT   01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x short.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley; TISSUE=Brain;
RA   He X.J., Jin K.L., Graham S.H., Simon R.P.;
RL   Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF136230; AAD33683.1; -.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01259; BH3; 1.
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DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   170 AA;  19031 MW;  B579ADAA98F79208 CRC64;

   Q9WUI5  Length: 170  May 13, 2004 16:47  Type: P  Check: 4817  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

      51  INGNPSWHLA DSPEVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQDSFVD LYGNNAAAES RKGQERFNRW

     151  FLTGMTVAGV VLLGSLFSRK

!!AA_SEQUENCE 1.0
ID   Q8CFR2      PRELIMINARY;      PRT;   178 AA.
AC   Q8CFR2;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl2-like 2.
GN   BCL2L2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Eye;
RA   Strausberg R.;
RL   Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC040369; AAH40369.1; -.
DR   MGD; MGI:108052; Bcl2l2.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   178 AA;  19119 MW;  E2C3F3F79528E9D7 CRC64;

   Q8CFR2  Length: 178  May 13, 2004 16:47  Type: P  Check: 4746  ..

       1  MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQDWMVAYL ETRLADWIHS SGGWVRSSQL

     151  LLSASLYKVG LHGKIGPLMG GWGCAGKG

!!AA_SEQUENCE 1.0
ID   O88996      PRELIMINARY;      PRT;   193 AA.
AC   O88996;
DT   01-NOV-1998 (TrEMBLrel. 08, Created)
DT   01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl-w.
GN   BCL-W.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley; TISSUE=Brain;
RX   MEDLINE=99292146; PubMed=10366024;
RA   Hamner S., Skoglosa Y., Lindholm D.;
RT   "Differential expression of bcl-w and bcl-x messenger RNA in the
RT   developing and adult rat nervous system.";
RL   Neuroscience 91:673-684(1999).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley;
RX   MEDLINE=22672518; PubMed=12787069;
RA   Itoh T., Itoh A., Pleasure D.;
RT   "Bcl-2-related protein family gene expression during oligodendroglial
RT   differentiation.";
RL   J. Neurochem. 85:1500-1512(2003).
DR   EMBL; AF096291; AAC64200.1; -.
DR   EMBL; AY185098; AAO64468.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   193 AA;  20820 MW;  36D6742F4529AFB4 CRC64;

   O88996  Length: 193  May 13, 2004 16:47  Type: P  Check: 8  ..

       1  MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQDWMVTYL ETRLADWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   Q7TS62      PRELIMINARY;      PRT;   284 AA.
AC   Q7TS62;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl-xbeta.
GN   BCL-X.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley;
RX   MEDLINE=22672518; PubMed=12787069;
RA   Itoh T., Itoh A., Pleasure D.;
RT   "Bcl-2-related protein family gene expression during oligodendroglial
RT   differentiation.";
RL   J. Neurochem. 85:1500-1512(2003).
DR   EMBL; AY141038; AAN17784.1; -.
SQ   SEQUENCE   284 AA;  31776 MW;  B8F35F641D4E029E CRC64;

   Q7TS62  Length: 284  May 13, 2004 16:47  Type: P  Check: 9043  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL
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     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWVR TTPLVCPPLV

     201  CLSSVEIPNC PFWSPGMVVE DIDYSGDIPG FTLIPGVNFG NIDDPVFKEP

     251  VFFILATLVA PQFHSFVPIS RQRKTACVFT WLKT

!!AA_SEQUENCE 1.0
ID   Q7TS60      PRELIMINARY;      PRT;   219 AA.
AC   Q7TS60;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   BCL-WEL.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley;
RX   MEDLINE=22672518; PubMed=12787069;
RA   Itoh T., Itoh A., Pleasure D.;
RT   "Bcl-2-related protein family gene expression during oligodendroglial
RT   differentiation.";
RL   J. Neurochem. 85:1500-1512(2003).
DR   EMBL; AY185100; AAO64470.1; -.
SQ   SEQUENCE   219 AA;  23720 MW;  30E36041BC1DC66F CRC64;

   Q7TS60  Length: 219  May 13, 2004 16:47  Type: P  Check: 7981  ..

       1  MSLFPGLCQYF SYIYVSLSSL PLSAARMATP ASTPDTRALV ADFVGYKLRQ

      51  KGYVCGAGPG EGPAADPLHQ AMRAAGDEFE TRFRRTFSDL AAQLHVTPGS

     101  AQQRFTQVSD ELFQGGPNWG RLVAFFVFGA ALCAESVNKE MEPLVGQVQD

     151  WMVTYLETRL ADWIHSSGGW AEFTALYGDG ALEEARRLRE GNWASVRTVL

     201  TGAVALGALV TVGAFFASK

!!AA_SEQUENCE 1.0
ID   Q8UWJ1      PRELIMINARY;      PRT;    89 AA.
AC   Q8UWJ1;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x (Fragment).
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Ovary;
RA   Shi Z., Onagbesan O.M., Williams J.;
RT   "Apoptosis in chicken ovary.";
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF432511; AAL35559.1; -.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER      89     89
SQ   SEQUENCE   89 AA;  10124 MW;  B5B0EBE5F323A8C4 CRC64;

   Q8UWJ1  Length: 89  May 13, 2004 16:47  Type: P  Check: 8244  ..

       1  VRASDVRQAL RDAGDEFELR YRRAFSDLTS QLHITPGTAY QSFEQVVNEL

      51  FHDGVNWGRI VAFFSFGGAL CVESVDKEMR VLVGRIVSW

!!AA_SEQUENCE 1.0
ID   Q98MZ9      PRELIMINARY;      PRT;   378 AA.
AC   Q98MZ9;
DT   01-OCT-2001 (TrEMBLrel. 18, Created)
DT   01-OCT-2001 (TrEMBLrel. 18, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Cyclopropane-fatty-acyl-phospholipid synthase.
GN   MLL0368.
OS   Rhizobium loti (Mesorhizobium loti).
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Phyllobacteriaceae; Mesorhizobium.
OX   NCBI_TaxID=381;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=MAFF303099;
RX   MEDLINE=21082930; PubMed=11214968;
RA   Kaneko T., Nakamura Y., Sato S., Asamizu E., Kato T., Sasamoto S.,
RA   Watanabe A., Idesawa K., Ishikawa A., Kawashima K., Kimura T.,
RA   Kishida Y., Kiyokawa C., Kohara M., Matsumoto M., Matsuno A.,
RA   Mochizuki Y., Nakayama S., Nakazaki N., Shimpo S., Sugimoto M.,
RA   Takeuchi C., Yamada M., Tabata S.;
RT   "Complete genome structure of the nitrogen-fixing symbiotic bacterium
RT   Mesorhizobium loti.";
RL   DNA Res. 7:331-338(2000).
DR   EMBL; AP002994; BAB47964.1; -.
DR   GO; GO:0008825; F:cyclopropane-fatty-acyl-phospholipid syntha. . .; IEA.
DR   GO; GO:0008610; P:lipid biosynthesis; IEA.
DR   InterPro; IPR003333; CMAS.
DR   InterPro; IPR000051; SAM_bind.
DR   Pfam; PF02353; CMAS; 1.
KW   Complete proteome.
SQ   SEQUENCE   378 AA;  42458 MW;  8F58185BC5C7B889 CRC64;

   Q98MZ9  Length: 378  May 13, 2004 16:47  Type: P  Check: 2161  ..

       1  MNLPRGSLKV RMPDGRAVLV GGKGPGPDAE LVLKNWRLPG RAFSGGTIGV

      51  AESYMDGDWE SPDVTSFLEL FVVNSAIGER VAGGASWLIN TVQRIRHWFN

     101  ENTRTGSKRN ISAHYDLGNA FYREWLDPSM TYSSALYANG ANDLESAQAA

     151  KYRALARDTG IGGKDHVLEI GCGWGGFAEF AAREIGCRVT GLTISREQHD

     201  FAKARIAKAG LADKVDIKLQ DYRDETGTYD RIASIEMFEA VGEKYWPVFF

     251  SKMKSCLRPG GTAGLQIITI NEAAYDTYRA RPDFIQRYVF PGGMLPTPSI

     301  LKSLGKDHGL AHLRERVFPD DYARTLAEWR NRFWGSWEKI VPLGFDDRFK

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!!AA_SEQUENCE 1.0
ID   Q8EYV5      PRELIMINARY;      PRT;   228 AA.
AC   Q8EYV5;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein.
GN   LA4108.
OS   Leptospira interrogans.
OC   Bacteria; Spirochaetes; Spirochaetales; Leptospiraceae; Leptospira.
OX   NCBI_TaxID=173;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=56601 / Serogroup Icterohaemorrhagiae / Serovar lai;
RA   Ren S.;
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AE011564; AAN51306.1; -.
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KW   Hypothetical protein; Complete proteome.
SQ   SEQUENCE   228 AA;  26761 MW;  75F961FF7CB778B9 CRC64;

   Q8EYV5  Length: 228  May 13, 2004 16:47  Type: P  Check: 7551  ..

       1  MIFLEEMIHS IRCYTAHSAF LLALACATCI WVTLPLSLLS ESTETQIREK

      51  IWQEIYNQDF HSSKKLVQLE LAKSGKNETI SLLSFLEISL NGLQRHKQAN

     101  DIRKKILSIW ETKYKKTFVE ENYPINLSTW TRMIIVKSDT MLVGAEYFIP

     151  YPINSNKDGF YYHKFTLYNR FSKKPTRFFK LEKSSTTNQE YCLYEINSDG

     201  ESKQIKNYGD TLPEMKDEMS FLMGFLSI

!!AA_SEQUENCE 1.0
ID   Q97CB9      PRELIMINARY;      PRT;   328 AA.
AC   Q97CB9;
DT   01-OCT-2001 (TrEMBLrel. 18, Created)
DT   01-OCT-2001 (TrEMBLrel. 18, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Hypothetical protein TV0183.
GN   TV0183 OR TVG0189568.
OS   Thermoplasma volcanium.
OC   Archaea; Euryarchaeota; Thermoplasmata; Thermoplasmatales;
OC   Thermoplasmataceae; Thermoplasma.
OX   NCBI_TaxID=50339;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=GSS1 / DSM 4299 / JCM 9571;
RX   MEDLINE=20570466; PubMed=11121031;
RA   Kawashima T., Amano N., Koike H., Makino S.-I., Higuchi S.,
RA   Kawashima-Ohya Y., Watanabe K., Yamazaki M., Kanehori K., Kawamoto T.,
RA   Nunoshiba T., Yamamoto Y., Aramaki H., Makino K., Suzuki M.;
RT   "Archaeal adaptation to higher temperatures revealed by genomic
RT   sequence of Thermoplasma volcanium.";
RL   Proc. Natl. Acad. Sci. U.S.A. 97:14257-14262(2000).
DR   EMBL; AP000991; BAB59325.1; -.
DR   InterPro; IPR001279; Blactmase-like.
DR   Pfam; PF00753; lactamase_B; 1.
KW   Hypothetical protein; Complete proteome.
SQ   SEQUENCE   328 AA;  37091 MW;  95994781937E0F03 CRC64;

   Q97CB9  Length: 328  May 13, 2004 16:47  Type: P  Check: 4878  ..

       1  MLRFMVRSFA SLAISSAYSI PIGLSSVTSI LDEDTIIERV CYGYLKCNAT

      51  CSTEIVIVNY SITLNMSDDV VVKLLNDGYF SLDAGAYFGV VPKAIWSRKF

     101  QEIDNTVRLA TNVLYITESD GTSILVDSGI GNKFDDKFRK IYRVEKQSDI

     151  YEYIRLHGDP NSVRMIINSH LHFDHVGHNA DFKNAYAYAQ ADEFKAARYR

     201  NYITKANYRL SASQIKNKVE IGGSKRINGF IRVIKTDGHT PGHQVILINA

     251  GGRKIMYFGD IVPSTFHLKL PYRTAIDLDP LKTIEFKKNL VKMAIRENYI

     301  CIFNHDVETP AAILSGDYSD PKYVKVDI
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> O <
O| |O  IntelliGenetics
> O <

Quest - Quick User-directed Expression Search Tool
Release 5.4

                    -- Outline of search "wax058" --

Selected search type is key against sequence data banks or files.
Selected scope is Sequence.
Selected sequence key from "wax058.key":
  wax058 (AA) 51204
1       followed by
2         f or y or w
2         e or d or s
2         d or t or a or v or i or l
2         k or r
2         f or y or w
2         k or r
2         k or r
2         a or v or i or l or d or t
2         f or y or w

Selected data banks and files:

    Data bank : A-GeneSeq 35.2, all entries
    Data bank : Issued_AA , all entries
    Data bank : Pending_AA , all entries

                        -- Output Parameters --

Format Options:                          File Options:
  Nucleic acid code matching   Exact      Indirect file              No
  Find non-matching hits only  No         Sequence or key file       No
  Report key used              Yes        List of hits               Yes
  Note position of hit         Yes        Hit display                Yes
  Display full annotations     Yes        Name and annotations       Yes
  Sequence context             10

                          -- Run Parameters --

  Run mode                     Batch
    Time to start comparison   now
    Notify at end of run       Yes

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1 match found in sequence:
 US-08-333-565-59 ; Sequence 59, Application US/08333565
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 59, Application US/08333565
 Patent No. 5622852
  GENERAL INFORMATION:
    APPLICANT:  KORSMEYER, Stanley J.
    TITLE OF INVENTION:  Bcl-x/Bcl-2 ASSOCIATED CELL DEATH
    TITLE OF INVENTION:  REGULATOR
    NUMBER OF SEQUENCES:  59
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Townsend and Townsend Khourie and Crew
      STREET:  379 Lytton Avenue
      CITY:  Palo Alto
      STATE:  California
      COUNTRY:  US
      ZIP:  94301
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/333,565
      FILING DATE:  31-OCT-1994
      CLASSIFICATION:  435
    ATTORNEY/AGENT INFORMATION:
      NAME:  Smith, William M
      REGISTRATION NUMBER:  30,223
      REFERENCE/DOCKET NUMBER:  15726A-000700
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (415) 326-2400
      TELEFAX:  (415) 326-2422
   INFORMATION FOR SEQ ID NO:  59:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  single
      TOPOLOGY:  unknown
    MOLECULE TYPE:  peptide
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 US-08-081-448-2 ; Sequence 2, Application US/08081448
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 2, Application US/08081448
 Patent No. 5646008
  GENERAL INFORMATION:
    APPLICANT:  Thompson, Craig B.
    APPLICANT:  Boise, Lawrence H.
    TITLE OF INVENTION:  Vertebrate Apoptosis Gene:
    TITLE OF INVENTION:  Compositions and Methods
    NUMBER OF SEQUENCES:  8
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  321 No. 5646008th Clark Street, Suite 800
      CITY:  Chicago
      STATE:  IL
      COUNTRY:  USA
      ZIP:  60610
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/081,448
      FILING DATE:  19930622
      CLASSIFICATION:  424
    ATTORNEY/AGENT INFORMATION:
      NAME:  No. 5646008thrup, Thomas E.
      REGISTRATION NUMBER:  33,268
      REFERENCE/DOCKET NUMBER:  ARCD090
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  312-744-0090
      TELEFAX:  312-755-4489
   INFORMATION FOR SEQ ID NO:  2:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  190 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
US-08-081-448-6 ; Sequence 6, Application US/08081448
(from "/srch/iaa/5A_COMB.pep")
Sequence 6, Application US/08081448
Patent No. 5646008
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B.
APPLICANT: Boise, Lawrence H.
TITLE OF INVENTION: Vertebrate Apoptosis Gene:
TITLE OF INVENTION: Compositions and Methods
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: 321 No. 5646008th Clark Street, Suite 800
CITY: Chicago
STATE: IL
COUNTRY: USA
ZIP: 60610
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/081,448
FILING DATE: 19930622
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 5646008thrup, Thomas E.
REGISTRATION NUMBER: 33,268
REFERENCE/DOCKET NUMBER: ARCD090
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-744-0090
TELEFAX: 312-755-4489
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-08-081-448-8 ; Sequence 8, Application US/08081448
(from "/srch/iaa/5A_COMB.pep")
Sequence 8, Application US/08081448
Patent No. 5646008
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B.
APPLICANT: Boise, Lawrence H.
TITLE OF INVENTION: Vertebrate Apoptosis Gene:
TITLE OF INVENTION: Compositions and Methods
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: 321 No. 5646008th Clark Street, Suite 800
CITY: Chicago
STATE: IL
COUNTRY: USA
ZIP: 60610
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/081,448
FILING DATE: 19930622
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: No. 5646008thrup, Thomas E.
REGISTRATION NUMBER: 33,268
REFERENCE/DOCKET NUMBER: ARCD090
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-744-0090
TELEFAX: 312-755-4489
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 170 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-08-321-071A-26 ; Sequence 26, Application US/08321071A
(from "/srch/iaa/5A_COMB.pep")
Sequence 26, Application US/08321071A
Patent No. 5672686
GENERAL INFORMATION:
APPLICANT: CHITTENDEN, Thomas D.
TITLE OF INVENTION: APOPTOSIS RELATED PROTEIN Bcl-Y, AND METHODS
TITLE OF INVENTION: OF USE THEREOF
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hale and Dorr
STREET: 1455 Pennsylvania Avenue, N.W.
CITY: Washington
STATE: D.C.
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/321,071A
FILING DATE: 11-OCT-1994
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/10103
FILING DATE: 09-AUG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/287,427
FILING DATE: 09-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: WIXON, HENRY N.
REGISTRATION NUMBER: 32,073
REFERENCE/DOCKET NUMBER: 104322.121CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-942-8400
TELEFAX: 202-942-8484
INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:

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      LENGTH:  49 amino a6cids
      TYPE:  amino acid
      STRANDEDNESS:  single
      TOPOLOGY:  linear
    MOLECULE TYPE:  peptide
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-607-269-24 ; Sequence 24, Application US/08607269
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 24, Application US/08607269
 Patent No. 5702897
  GENERAL INFORMATION:
    APPLICANT:  Reed, John C.
    APPLICANT:  Sato, Takaaki
    TITLE OF INVENTION:  Interaction of Proteins Involved in a
    TITLE OF INVENTION:  Cell Death Pathway
    NUMBER OF SEQUENCES:  29
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Campbell and Flores
      STREET:  4370 La Jolla Village Drive, Suite 700
      CITY:  San Diego
      STATE:  California
      COUNTRY:  USA
      ZIP:  92122
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/607,269
      FILING DATE:
      CLASSIFICATION:  435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/226,876
      FILING DATE:  13-APR-1994
    ATTORNEY/AGENT INFORMATION:
      NAME:  Campbell, Cathryn A.
      REGISTRATION NUMBER:  31,815
      REFERENCE/DOCKET NUMBER:  P-LJ 9882
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (619) 535-9001
      TELEFAX:  (619) 535-8949
   INFORMATION FOR SEQ ID NO:  24:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-471-058-14 ; Sequence 14, Application US/08471058
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 14, Application US/08471058
 Patent No. 5770443
  GENERAL INFORMATION:
    APPLICANT:  Kiefer, Michael C.
    APPLICANT:  Barr, Philip J.
    TITLE OF INVENTION:  NOVEL APOPTOSIS MODULATING
    TITLE OF INVENTION:  PROTEINS, DNA ENCODING THE PROTEINS AND METHODS OF USE
    TITLE OF INVENTION:  THEREOF
    NUMBER OF SEQUENCES:  24
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  MORRISON & FOERSTER
      STREET:  755 PAGE MILL ROAD
      CITY:  Palo Alto
      STATE:  CA
      COUNTRY:  USA
      ZIP:  94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Diskette
      COMPUTER:  IBM Compatible
      OPERATING SYSTEM:  DOS
      SOFTWARE:  FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/471,058
      FILING DATE:  06-JUN-1995
      CLASSIFICATION:  800
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/320,157
      FILING DATE:  07-OCT-1994
      APPLICATION NUMBER:  08/160,067
      FILING DATE:  30-NOV-1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  Lehnhardt, Susan K
      REGISTRATION NUMBER:  33,943
      REFERENCE/DOCKET NUMBER:  23647-20007.12
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  415-813-5600
      TELEFAX:  415-494-0792
      TELEX:  706141
   INFORMATION FOR SEQ ID NO:  14:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  single
      TOPOLOGY:  linear
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                   97      105

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1 match found in sequence:
 US-08-798-897-3 ; Sequence 3, Application US/08798897
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 3, Application US/08798897
 Patent No. 5789201
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
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      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  435
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  3:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  193 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-798-897-4 ; Sequence 4, Application US/08798897
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 4, Application US/08798897
 Patent No. 5789201
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  435
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  4:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  193 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
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 US-08-798-897-5 ; Sequence 5, Application US/08798897
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 5, Application US/08798897
 Patent No. 5789201
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  435
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  5:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  192 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-798-897-6 ; Sequence 6, Application US/08798897
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 6, Application US/08798897
 Patent No. 5789201
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
```

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      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  435
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  6:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  192 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-798-897-17 ; Sequence 17, Application US/08798897
  (from "/srch/iaa/5A_COMB.pep")
 Sequence 17, Application US/08798897
 Patent No. 5789201
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  435
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  17:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  47 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  peptide
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1       ALREAGDEFELRYRRAFSDLTSQLHIT
                9       17

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1 match found in sequence:
 US-08-661-479-59 ; Sequence 59, Application US/08661479
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 59, Application US/08661479
 Patent No. 5834209
  GENERAL INFORMATION:
    APPLICANT:  KORSMEYER, Stanley J.
    TITLE OF INVENTION:  Bcl-x/Bcl-2 ASSOCIATED CELL DEATH
    TITLE OF INVENTION:  REGULATOR
    NUMBER OF SEQUENCES:  59
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Townsend and Townsend Khourie and Crew
      STREET:  379 Lytton Avenue
      CITY:  Palo Alto
      STATE:  California
      COUNTRY:  US
      ZIP:  94301
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/661,479
      FILING DATE:  11-JUN-1995
      CLASSIFICATION:  435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/333,565
      FILING DATE:  31-OCT-1994
    ATTORNEY/AGENT INFORMATION:
      NAME:  Smith, William M
      REGISTRATION NUMBER:  30,223
      REFERENCE/DOCKET NUMBER:  15726A-000700
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (415) 326-2400
      TELEFAX:  (415) 326-2422
  INFORMATION FOR SEQ ID NO:  59:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  single
      TOPOLOGY:  unknown
    MOLECULE TYPE:  peptide
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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 US-08-470-670A-2 ; Sequence 2, Application US/08470670A
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 2, Application US/08470670A
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Patent No. 5834309
Patent No. 5834309 5710045
 GENERAL INFORMATION:
   APPLICANT:  Thompson, Craig B. B.
   APPLICANT:  Boise, Lawrence H.
   TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE:
   TITLE OF INVENTION:  COMPOSITIONS AND METHODS
   NUMBER OF SEQUENCES:  18
   CORRESPONDENCE ADDRESS:
     ADDRESSEE:  Arnold, White & Durkee
     STREET:  P.O. Box 4433
     CITY:  Houston
     STATE:  Texas
     COUNTRY:  United States of America
     ZIP:  77210
   COMPUTER READABLE FORM:
     MEDIUM TYPE:  Floppy disk
     COMPUTER:  IBM PC compatible
     OPERATING SYSTEM:  PC-DOS/MS-DOS
     SOFTWARE:  PatentIn Release #1.0, Version #1.30
   CURRENT APPLICATION DATA:
     APPLICATION NUMBER:  US/08/470,670A
     FILING DATE:
     CLASSIFICATION:  514
   PRIOR APPLICATION DATA:
     APPLICATION NUMBER:  US 08/081,448
     FILING DATE:  22-JUN-1993
   ATTORNEY/AGENT INFORMATION:
     NAME:  Highlander, Steven L.
     REGISTRATION NUMBER:  37,642
     REFERENCE/DOCKET NUMBER:  ARCD:090--1
   TELECOMMUNICATION INFORMATION:
     TELEPHONE:  (512) 418-3000
     TELEFAX:  (512) 474-7577
  INFORMATION FOR SEQ ID NO:  2:
   SEQUENCE CHARACTERISTICS:
     LENGTH:  190 amino acids
     TYPE:  amino acid
     TOPOLOGY:  linear
   MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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83       RQALRDAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 US-08-470-670A-7 ; Sequence 7, Application US/08470670A
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 7, Application US/08470670A
 Patent No. 5834309
 Patent No. 5834309 5710045
  GENERAL INFORMATION:
    APPLICANT:  Thompson, Craig B. B.
    APPLICANT:  Boise, Lawrence H.
    TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE:
    TITLE OF INVENTION:  COMPOSITIONS AND METHODS
    NUMBER OF SEQUENCES:  18
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P.O. Box 4433
      CITY:  Houston
      STATE:  Texas
      COUNTRY:  United States of America
      ZIP:  77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/470,670A
      FILING DATE:
      CLASSIFICATION:  514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/081,448
      FILING DATE:  22-JUN-1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  Highlander, Steven L.
      REGISTRATION NUMBER:  37,642
      REFERENCE/DOCKET NUMBER:  ARCD:090--1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (512) 418-3000
      TELEFAX:  (512) 474-7577
   INFORMATION FOR SEQ ID NO:  7:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 US-08-470-670A-9 ; Sequence 9, Application US/08470670A
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 9, Application US/08470670A
 Patent No. 5834309
 Patent No. 5834309 5710045
  GENERAL INFORMATION:
    APPLICANT:  Thompson, Craig B. B.
    APPLICANT:  Boise, Lawrence H.
    TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE:
    TITLE OF INVENTION:  COMPOSITIONS AND METHODS
    NUMBER OF SEQUENCES:  18
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P.O. Box 4433
      CITY:  Houston
      STATE:  Texas
      COUNTRY:  United States of America
      ZIP:  77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/470,670A
      FILING DATE:
      CLASSIFICATION:  514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/081,448
      FILING DATE:  22-JUN-1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  Highlander, Steven L.
      REGISTRATION NUMBER:  37,642
      REFERENCE/DOCKET NUMBER:  ARCD:090--1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (512) 418-3000
      TELEFAX:  (512) 474-7577
   INFORMATION FOR SEQ ID NO:  9:
    SEQUENCE CHARACTERISTICS:
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LENGTH: 170 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-08-470-670A-11 ; Sequence 11, Application US/08470670A
(from "/srch/iaa/5B_COMB.pep")
Sequence 11, Application US/08470670A
Patent No. 5834309
Patent No. 5834309 5710045
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B. B.
APPLICANT: Boise, Lawrence H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE:
TITLE OF INVENTION: COMPOSITIONS AND METHODS
NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: United States of America
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/470,670A
FILING DATE:
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/081,448
FILING DATE: 22-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: ARCD:090--1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 418-3000
TELEFAX: (512) 474-7577
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 109 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
Found using 'wax058' (wax058.key)

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2 RQALRDAGDEFELRYRRAFSDLTSQLHIT
12 20

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1 match found in sequence:
US-08-470-670A-15 ; Sequence 15, Application US/08470670A
(from "/srch/iaa/5B_COMB.pep")

Sequence 15, Application US/08470670A
Patent No. 5834309
Patent No. 5834309 5710045
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B. B.
APPLICANT: Boise, Lawrence H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE:
TITLE OF INVENTION: COMPOSITIONS AND METHODS
NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: United States of America
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/470,670A
FILING DATE:
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/081,448
FILING DATE: 22-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: ARCD:090--1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 418-3000
TELEFAX: (512) 474-7577
INFORMATION FOR SEQ ID NO: 15:
SEQUENCE CHARACTERISTICS:
LENGTH: 121 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
Found using 'wax058' (wax058.key)

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93 101

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1 match found in sequence:
US-08-978-523-3 ; Sequence 3, Application US/08978523
(from "/srch/iaa/5B_COMB.pep")
Sequence 3, Application US/08978523
Patent No. 5883229
GENERAL INFORMATION:
APPLICANT: Guastella, John
TITLE OF INVENTION: Genes Coding For Bcl-y, a Bcl-2
TITLE OF INVENTION: Homologue
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 New York Avenue, N.W., Suite 600
CITY: Washington
STATE: DC
COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS

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      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/978,523
      FILING DATE:  herewith
      CLASSIFICATION:  424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  424
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  3:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  193 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-978-523-4 ; Sequence 4, Application US/08978523
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 4, Application US/08978523
 Patent No. 5883229
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/978,523
      FILING DATE:  herewith
      CLASSIFICATION:  424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  424
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  4:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  193 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
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 US-08-978-523-5 ; Sequence 5, Application US/08978523
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 5, Application US/08978523
 Patent No. 5883229
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/978,523
      FILING DATE:  herewith
      CLASSIFICATION:  424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  424
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  5:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  192 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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 US-08-978-523-6 ; Sequence 6, Application US/08978523
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 (from "/srch/iaa/5B_COMB.pep")
Sequence 6, Application US/08978523
Patent No. 5883229
 GENERAL INFORMATION:
   APPLICANT:  Guastella, John
   TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
   TITLE OF INVENTION:  Homologue
   NUMBER OF SEQUENCES:  53
   CORRESPONDENCE ADDRESS:
     ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
     STREET:  1100 New York Avenue, N.W., Suite 600
     CITY:  Washington
     STATE:  DC
     COUNTRY:  USA
     ZIP:  20005
   COMPUTER READABLE FORM:
     MEDIUM TYPE:  Floppy disk
     COMPUTER:  IBM PC compatible
     OPERATING SYSTEM:  PC-DOS/MS-DOS
     SOFTWARE:  PatentIn Release #1.0, Version #1.30
   CURRENT APPLICATION DATA:
     APPLICATION NUMBER:  US/08/978,523
     FILING DATE:  herewith
     CLASSIFICATION:  424
   PRIOR APPLICATION DATA:
     APPLICATION NUMBER:  US 08/798,897
     FILING DATE:  February 11, 1997
     CLASSIFICATION:  424
   ATTORNEY/AGENT INFORMATION:
     NAME:  Esmond, Robert W.
     REGISTRATION NUMBER:  32,893
     REFERENCE/DOCKET NUMBER:  1483.0140002
   TELECOMMUNICATION INFORMATION:
     TELEPHONE:  202-371-2600
     TELEFAX:  202-371-2540
 INFORMATION FOR SEQ ID NO:  6:
   SEQUENCE CHARACTERISTICS:
     LENGTH:  192 amino acids
     TYPE:  amino acid
     STRANDEDNESS:  not relevant
     TOPOLOGY:  linear
   MOLECULE TYPE:  protein
Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-978-523-17 ; Sequence 17, Application US/08978523
  (from "/srch/iaa/5B_COMB.pep")
 Sequence 17, Application US/08978523
 Patent No. 5883229
  GENERAL INFORMATION:
    APPLICANT:  Guastella, John
    TITLE OF INVENTION:  Genes Coding For Bcl-y, a Bcl-2
    TITLE OF INVENTION:  Homologue
    NUMBER OF SEQUENCES:  53
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET:  1100 New York Avenue, N.W., Suite 600
      CITY:  Washington
      STATE:  DC
      COUNTRY:  USA
      ZIP:  20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/978,523
      FILING DATE:  herewith
      CLASSIFICATION:  424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/798,897
      FILING DATE:  February 11, 1997
      CLASSIFICATION:  424
    ATTORNEY/AGENT INFORMATION:
      NAME:  Esmond, Robert W.
      REGISTRATION NUMBER:  32,893
      REFERENCE/DOCKET NUMBER:  1483.0140002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-371-2600
      TELEFAX:  202-371-2540
  INFORMATION FOR SEQ ID NO:  17:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  47 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  not relevant
      TOPOLOGY:  linear
    MOLECULE TYPE:  peptide
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-471-057-14 ; Sequence 14, Application US/08471057
  (from "/srch/iaa/6A_COMB.pep")
 Sequence 14, Application US/08471057
 Patent No. 6015687
  GENERAL INFORMATION:
    APPLICANT:  KIEFER, MICHAEL C.
    APPLICANT:  BARR, PHILIP J.
    TITLE OF INVENTION:  NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
    TITLE OF INVENTION:  ENCODING THE PROTEINS AND METHODS OF USE THEREOF
    NUMBER OF SEQUENCES:  22
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  MORRISON & FOERSTER
      STREET:  755 Page Mill Road
      CITY:  Palo Alto
      STATE:  California
      COUNTRY:  USA
      ZIP:  94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/471,057
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/320,157
      FILING DATE:  07-OCT-1994
    ATTORNEY/AGENT INFORMATION:
      NAME:  LEHNHARDT, SUSAN K.
      REGISTRATION NUMBER:  33,943
      REFERENCE/DOCKET NUMBER:  23647-20007.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (415) 813-5600
      TELEFAX:  (415) 494-0792
      TELEX:  706141
  INFORMATION FOR SEQ ID NO:  14:
    SEQUENCE CHARACTERISTICS:
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LENGTH: 233 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
Found using 'wax058' (wax058.key)

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97 105

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1 match found in sequence:
US-08-481-739-2 ; Sequence 2, Application US/08481739
(from "/srch/iaa/6A_COMB.pep")
Sequence 2, Application US/08481739
Patent No. 6143291
GENERAL INFORMATION:
APPLICANT: June, Carl H. and Thompson, Craig B.
TITLE OF INVENTION: METHODS FOR ENHANCING T CELL SURVIVAL
TITLE OF INVENTION: BY AUGMENTING BCL-XL PROTEIN LEVELS
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 28 State Street
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/481,739
FILING DATE: 07-JUNE-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/435,518
FILING DATE: 04-MAY-1995
ATTORNEY/AGENT INFORMATION:
NAME: DeConti, Giulio A. (GAD)
REGISTRATION NUMBER: 31,503
REFERENCE/DOCKET NUMBER: RPI-034CP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-09-167-921-2 ; Sequence 2, Application US/09167921A
(from "/srch/iaa/6A_COMB.pep")
Sequence 2, Application US/09167921A
Patent No. 6172216
GENERAL INFORMATION:
APPLICANT: Bennett, C. Frank
APPLICANT: Dean, Nicholas M.
APPLICANT: Monia, Brett P.
APPLICANT: Nickoloff, Brian J.
APPLICANT: Zhang, QingQing
TITLE OF INVENTION: Antisense Modulation of bcl-x Expression
FILE REFERENCE: ISPH-0324
CURRENT APPLICATION NUMBER: US/09/167,921A
CURRENT FILING DATE: 1998-10-07
NUMBER OF SEQ ID NOS: 50
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
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1 match found in sequence:
US-09-323-743-2 ; Sequence 2, Application US/09323743
(from "/srch/iaa/6A_COMB.pep")
Sequence 2, Application US/09323743
Patent No. 6214986
GENERAL INFORMATION:
APPLICANT: Bennett, C. Frank
APPLICANT: Dean, Nicholas M.
APPLICANT: Monia, Brett P.
APPLICANT: Nickoloff, Brian J.
APPLICANT: Zhang, QingQing
TITLE OF INVENTION: Antisense Modulation of bcl-x Expression
FILE REFERENCE: ISPH-0368
CURRENT APPLICATION NUMBER: US/09/323,743
CURRENT FILING DATE: 1999-06-01
EARLIER APPLICATION NUMBER: 09/277,020
EARLIER FILING DATE: 1998-03-26
EARLIER APPLICATION NUMBER: 09/167,921
EARLIER FILING DATE: 1998-10-07
NUMBER OF SEQ ID NOS: 66
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
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1 match found in sequence:
US-09-101-519-1 ; Sequence 1, Application US/09101519
(from "/srch/iaa/6A_COMB.pep")
Sequence 1, Application US/09101519
Patent No. 6232118
GENERAL INFORMATION:
APPLICANT: Furst, Peter
APPLICANT: Waldmeier, Peter
APPLICANT: Tatton, William
TITLE OF INVENTION: Protein Induced By DEPRENYL
FILE REFERENCE: CASE 4-20714/A/PCT

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  CURRENT APPLICATION NUMBER: US/09/101,519
  CURRENT FILING DATE: 1998-08-13
  EARLIER APPLICATION NUMBER: PCT/EP96/05800
  EARLIER FILING DATE: 1996-12-21
  NUMBER OF SEQ ID NOS: 1
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 1
   LENGTH: 225
   TYPE: PRT
   ORGANISM: rat-derived
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1 match found in sequence:
 US-08-461-511A-2 ; Sequence 2, Application US/08461511A
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 2, Application US/08461511A
 Patent No. 6303331
   GENERAL INFORMATION:
        APPLICANT: Thompson, Craig B.B.
                   Boise, Lawrence H.
        TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS
                            AND METHODS
        NUMBER OF SEQUENCES: 18
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Arnold, White & Durkee
             STREET: P.O. Box 4433
             CITY: Houston
             STATE: Texas
             COUNTRY: United States of America
             ZIP: 77210
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/08/461,511A
             FILING DATE: 05-Jun-1995
             CLASSIFICATION: UNKNOWN
        ATTORNEY/AGENT INFORMATION:
             NAME: Highlander, Steven L.
             REGISTRATION NUMBER: 37,642
             REFERENCE/DOCKET NUMBER: ARCD:179
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (512) 418-3000
             TELEFAX: (512) 474-7577
   INFORMATION FOR SEQ ID NO: 2:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 190 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: protein
        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
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83      RQALRDAGDEFELRYRRAFSDLTSQLHIT
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 US-08-461-511A-7 ; Sequence 7, Application US/08461511A
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 7, Application US/08461511A
 Patent No. 6303331
   GENERAL INFORMATION:
        APPLICANT: Thompson, Craig B.B.
                   Boise, Lawrence H.
        TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS
                            AND METHODS
        NUMBER OF SEQUENCES: 18
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Arnold, White & Durkee
             STREET: P.O. Box 4433
             CITY: Houston
             STATE: Texas
             COUNTRY: United States of America
             ZIP: 77210
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/08/461,511A
             FILING DATE: 05-Jun-1995
             CLASSIFICATION: UNKNOWN
        ATTORNEY/AGENT INFORMATION:
             NAME: Highlander, Steven L.
             REGISTRATION NUMBER: 37,642
             REFERENCE/DOCKET NUMBER: ARCD:179
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (512) 418-3000
             TELEFAX: (512) 474-7577
   INFORMATION FOR SEQ ID NO: 7:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 233 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: protein
        SEQUENCE DESCRIPTION: SEQ ID NO: 7:
 Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-461-511A-9 ; Sequence 9, Application US/08461511A
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 9, Application US/08461511A
 Patent No. 6303331
   GENERAL INFORMATION:
        APPLICANT: Thompson, Craig B.B.
                   Boise, Lawrence H.
        TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS
                            AND METHODS
        NUMBER OF SEQUENCES: 18
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Arnold, White & Durkee
             STREET: P.O. Box 4433
             CITY: Houston
             STATE: Texas
             COUNTRY: United States of America
             ZIP: 77210
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
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          OPERATING SYSTEM: PC-DOS/MS-DOS
          SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
          APPLICATION NUMBER: US/08/461,511A
          FILING DATE: 05-Jun-1995
          CLASSIFICATION: UNKNOWN
     ATTORNEY/AGENT INFORMATION:
          NAME: Highlander, Steven L.
          REGISTRATION NUMBER: 37,642
          REFERENCE/DOCKET NUMBER: ARCD:179
     TELECOMMUNICATION INFORMATION:
          TELEPHONE: (512) 418-3000
          TELEFAX: (512) 474-7577
  INFORMATION FOR SEQ ID NO: 9:
     SEQUENCE CHARACTERISTICS:
          LENGTH: 170 amino acids
          TYPE: amino acid
          TOPOLOGY: linear
     MOLECULE TYPE: protein
     SEQUENCE DESCRIPTION: SEQ ID NO: 9:
Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-08-461-511A-11 ; Sequence 11, Application US/08461511A
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 11, Application US/08461511A
 Patent No. 6303331
   GENERAL INFORMATION:
     APPLICANT: Thompson, Craig B.B.
                Boise, Lawrence H.
     TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS
                         AND METHODS
     NUMBER OF SEQUENCES: 18
     CORRESPONDENCE ADDRESS:
          ADDRESSEE: Arnold, White & Durkee
          STREET: P.O. Box 4433
          CITY: Houston
          STATE: Texas
          COUNTRY: United States of America
          ZIP: 77210
     COMPUTER READABLE FORM:
          MEDIUM TYPE: Floppy disk
          COMPUTER: IBM PC compatible
          OPERATING SYSTEM: PC-DOS/MS-DOS
          SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
          APPLICATION NUMBER: US/08/461,511A
          FILING DATE: 05-Jun-1995
          CLASSIFICATION: UNKNOWN
     ATTORNEY/AGENT INFORMATION:
          NAME: Highlander, Steven L.
          REGISTRATION NUMBER: 37,642
          REFERENCE/DOCKET NUMBER: ARCD:179
     TELECOMMUNICATION INFORMATION:
          TELEPHONE: (512) 418-3000
          TELEFAX: (512) 474-7577
  INFORMATION FOR SEQ ID NO: 11:
     SEQUENCE CHARACTERISTICS:
          LENGTH: 109 amino acids
          TYPE: amino acid
          STRANDEDNESS: <Unknown>
          TOPOLOGY: linear
     SEQUENCE DESCRIPTION: SEQ ID NO: 11:
Found using 'wax058' (wax058.key)

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2       RQALRDAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 US-08-461-511A-15 ; Sequence 15, Application US/08461511A
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 15, Application US/08461511A
 Patent No. 6303331
   GENERAL INFORMATION:
     APPLICANT: Thompson, Craig B.B.
                Boise, Lawrence H.
     TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS
                         AND METHODS
     NUMBER OF SEQUENCES: 18
     CORRESPONDENCE ADDRESS:
          ADDRESSEE: Arnold, White & Durkee
          STREET: P.O. Box 4433
          CITY: Houston
          STATE: Texas
          COUNTRY: United States of America
          ZIP: 77210
     COMPUTER READABLE FORM:
          MEDIUM TYPE: Floppy disk
          COMPUTER: IBM PC compatible
          OPERATING SYSTEM: PC-DOS/MS-DOS
          SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
          APPLICATION NUMBER: US/08/461,511A
          FILING DATE: 05-Jun-1995
          CLASSIFICATION: UNKNOWN
     ATTORNEY/AGENT INFORMATION:
          NAME: Highlander, Steven L.
          REGISTRATION NUMBER: 37,642
          REFERENCE/DOCKET NUMBER: ARCD:179
     TELECOMMUNICATION INFORMATION:
          TELEPHONE: (512) 418-3000
          TELEFAX: (512) 474-7577
  INFORMATION FOR SEQ ID NO: 15:
     SEQUENCE CHARACTERISTICS:
          LENGTH: 121 amino acids
          TYPE: amino acid
          STRANDEDNESS: <Unknown>
          TOPOLOGY: linear
     SEQUENCE DESCRIPTION: SEQ ID NO: 15:
Found using 'wax058' (wax058.key)

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1 match found in sequence:
 US-09-271-014A-2 ; Sequence 2, Application US/09271014A
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 2, Application US/09271014A
 Patent No. 6395510
 GENERAL INFORMATION:
  APPLICANT:  THOMPSON, CRAIG B.
  APPLICANT:  BOISE, LAWRENCE H.
  TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE: COMPOSITIONS AND METHODS
  FILE REFERENCE:  ARCD:316
  CURRENT APPLICATION NUMBER: US/09/271,014A
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CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 10
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
LENGTH: 190
TYPE: PRT
ORGANISM: Chicken anemia virus
Found using 'wax058' (wax058.key)

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93 101

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1 match found in sequence:
US-09-271-014A-6 ; Sequence 6, Application US/09271014A
(from "/srch/iaa/6B_COMB.pep")
Sequence 6, Application US/09271014A
Patent No. 6395510
GENERAL INFORMATION:
APPLICANT: THOMPSON, CRAIG B.
APPLICANT: BOISE, LAWRENCE H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS AND METHODS
FILE REFERENCE: ARCD:316
CURRENT APPLICATION NUMBER: US/09/271,014A
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 10
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 233
TYPE: PRT
ORGANISM: Human
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-09-271-014A-8 ; Sequence 8, Application US/09271014A
(from "/srch/iaa/6B_COMB.pep")
Sequence 8, Application US/09271014A
Patent No. 6395510
GENERAL INFORMATION:
APPLICANT: THOMPSON, CRAIG B.
APPLICANT: BOISE, LAWRENCE H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS AND METHODS
FILE REFERENCE: ARCD:316
CURRENT APPLICATION NUMBER: US/09/271,014A
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 10
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 170
TYPE: PRT
ORGANISM: Human
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-09-149-476-696 ; Sequence 696, Application US/09149476
(from "/srch/iaa/6B_COMB.pep")
Sequence 696, Application US/09149476
Patent No. 6420526
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: 186 Human Secreted proteins
FILE REFERENCE: PZ002P1
CURRENT APPLICATION NUMBER: US/09/149,476
CURRENT FILING DATE: 1998-09-08
EARLIER APPLICATION NUMBER: PCT/US98/04493
EARLIER FILING DATE: 1998-03-06
EARLIER APPLICATION NUMBER: 60/040,162
EARLIER FILING DATE: 1997-03-07
EARLIER APPLICATION NUMBER: 60/040,333
EARLIER FILING DATE: 1997-03-07
EARLIER APPLICATION NUMBER: 60/038,621
EARLIER FILING DATE: 1997-03-07
EARLIER APPLICATION NUMBER: 60/040,626
EARLIER FILING DATE: 1997-03-07
EARLIER APPLICATION NUMBER: 60/040,334
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EARLIER FILING DATE: 1997-03-07
EARLIER APPLICATION NUMBER: 60/040,163
EARLIER FILING DATE: 1997-03-07
EARLIER APPLICATION NUMBER: 60/047,600
EARLIER FILING DATE: 1997-05-23
EARLIER APPLICATION NUMBER: 60/047,615
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EARLIER APPLICATION NUMBER: 60/047,632
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EARLIER APPLICATION NUMBER: 60/047,601

EARLIER FILING DATE: 1997-05-23
EARLIER APPLICATION NUMBER: 60/043,580
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EARLIER APPLICATION NUMBER: 60/043,568
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EARLIER APPLICATION NUMBER: 60/057,650
EARLIER FILING DATE: 1997-09-05
EARLIER APPLICATION NUMBER: 60/056,884
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EARLIER APPLICATION NUMBER: 60/057,669
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EARLIER APPLICATION NUMBER: 60/049,610
EARLIER FILING DATE: 1997-06-13
EARLIER APPLICATION NUMBER: 60/061,060
EARLIER FILING DATE: 1997-10-02
EARLIER APPLICATION NUMBER: 60/051,926
EARLIER FILING DATE: 1997-07-08
EARLIER APPLICATION NUMBER: 60/052,874
EARLIER FILING DATE: 1997-07-16
EARLIER APPLICATION NUMBER: 60/058,785
EARLIER FILING DATE: 1997-09-12
EARLIER APPLICATION NUMBER: 60/055,724
EARLIER FILING DATE: 1997-08-18
EARLIER APPLICATION NUMBER: 60/040,161
EARLIER FILING DATE: 1997-03-07
NUMBER OF SEQ ID NOS: 757
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 696

LENGTH: 365
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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43 HQAMRAAGDEFETRFRRTFSDLAAQLHVT
53 61

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1 match found in sequence:
US-08-899-367-2 ; Sequence 2, Application US/08899367
(from "/srch/iaa/6B_COMB.pep")
Sequence 2, Application US/08899367
Patent No. 6472170
GENERAL INFORMATION:
APPLICANT: Yang et al.
TITLE OF INVENTION: BCL-X{SYMBOL 103 \f "Symbol"}, A NOVEL BCL-X
TITLE OF INVENTION: ISOFORM, AND USES RELATED THERETO
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/899,367
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: DFN-019
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

...

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1 match found in sequence:
US-09-345-236B-41 ; Sequence 41, Application US/09345236B
(from "/srch/iaa/6B_COMB.pep")
Sequence 41, Application US/09345236B
Patent No. 6521454
GENERAL INFORMATION:
APPLICANT: Becnel, James J.
APPLICANT: Tukuo, Fukuda
APPLICANT: Moser, Bettina
APPLICANT: Cockburn, Andrew
APPLICANT: White, Susan E.
APPLICANT: Undeen, Albert H.
TITLE OF INVENTION: No. 6521454el Baculoviruses, Insecticidal
TITLE OF INVENTION: Compositions, and Methods for Control of Invertebrates
FILE REFERENCE: 21042.0004
CURRENT APPLICATION NUMBER: US/09/345,236B
CURRENT FILING DATE: 1999-06-30
NUMBER OF SEQ ID NOS: 148
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 41
LENGTH: 117
TYPE: PRT
ORGANISM: mosquito baculovirus
Found using 'wax058' (wax058.key)

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44 LSRFTALSYSFSDRFKRLYSALNCSKLCS
54 62

...

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1 match found in sequence:
US-08-470-865-14 ; Sequence 14, Application US/08470865
(from "/srch/iaa/6B_COMB.pep")
Sequence 14, Application US/08470865
Patent No. 6586395
GENERAL INFORMATION:
APPLICANT: KIEFER, MICHAEL C.
APPLICANT: BARR, PHILIP J.
TITLE OF INVENTION: NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
TITLE OF INVENTION: ENCODING THE PROTEINS AND METHODS OF USE THEREOF
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/470,865
FILING DATE: 06-JUN-1995
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/320,157
FILING DATE: 07-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23647-20007.20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
TELEFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105
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1 match found in sequence:
 US-09-010-147B-24 ; Sequence 24, Application US/09010147B
  (from "/srch/iaa/6B_COMB.pep")
 Sequence 24, Application US/09010147B
 Patent No. 6653445
   GENERAL INFORMATION:
        APPLICANT: Ni et al.
        TITLE OF INVENTION: Human Proteins
        NUMBER OF SEQUENCES: 24
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Human Genome Sciences, Inc.
             STREET: 9410 Key West Avenue
             CITY: Rockville
             STATE: MD
             COUNTRY: USA
             ZIP: 20850
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC
                       compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/010,147B
             FILING DATE: 12-No. 6653445-2002
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 60/034,205
             FILING DATE: 21-JAN-1997
             APPLICATION NUMBER: US 60/034,204
             FILING DATE: 21-JAN-1997
        ATTORNEY/AGENT INFORMATION:
             NAME: Jonathan L. Klein
             REGISTRATION NUMBER: 41,119
             REFERENCE/DOCKET NUMBER: PF353
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 301-309-8504
             TELEFAX: 301-309-8439
    INFORMATION FOR SEQ ID NO: 24:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 365 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: protein
        SEQUENCE DESCRIPTION: SEQ ID NO: 24:
 Found using 'wax058' (wax058.key)
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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
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1 match found in sequence:
 PCT-US94-07089-2 ; Sequence 2, Application PC/TUS9407089
  (from "/srch/iaa/PCTUS_COMB.pep")
 Sequence 2, Application PC/TUS9407089
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION:  Vertebrate Apoptosis Gene:
    TITLE OF INVENTION:  Compositions and Methods
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P.O. Box 4433
      CITY:  Houston
      STATE:  TX
      COUNTRY:  United States of America
      ZIP:  77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS, ASCII
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  PCT/US94/07089
      FILING DATE:  CONCURRENTLY FILED
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/081.448
      FILING DATE:  22 JUNE 1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  PARKER, David L.
      REGISTRATION NUMBER:  32,165
      REFERENCE/DOCKET NUMBER:  ARCD090
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  512-320-7200
      TELEFAX:  713-789-2679
  INFORMATION FOR SEQ ID NO:  2:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  190 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)
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                |-------|
83      RQALRDAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 PCT-US94-07089-7 ; Sequence 7, Application PC/TUS9407089
  (from "/srch/iaa/PCTUS_COMB.pep")
 Sequence 7, Application PC/TUS9407089
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION:  Vertebrate Apoptosis Gene:
    TITLE OF INVENTION:  Compositions and Methods
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P.O. Box 4433
      CITY:  Houston
      STATE:  TX
      COUNTRY:  United States of America
      ZIP:  77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS, ASCII
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  PCT/US94/07089
      FILING DATE:  CONCURRENTLY FILED
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/081.448
      FILING DATE:  22 JUNE 1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  PARKER, David L.
      REGISTRATION NUMBER:  32,165
```

```
      REFERENCE/DOCKET NUMBER:  ARCD090
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  512-320-7200
      TELEFAX:  713-789-2679
  INFORMATION FOR SEQ ID NO:  7:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                 97      105

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1 match found in sequence:
 PCT-US94-07089-9 ; Sequence 9, Application PC/TUS9407089
  (from "/srch/iaa/PCTUS_COMB.pep")
 Sequence 9, Application PC/TUS9407089
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION:  Vertebrate Apoptosis Gene:
    TITLE OF INVENTION:  Compositions and Methods
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P.O. Box 4433
      CITY:  Houston
      STATE:  TX
      COUNTRY:  United States of America
      ZIP:  77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS, ASCII
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  PCT/US94/07089
      FILING DATE:  CONCURRENTLY FILED
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/081.448
      FILING DATE:  22 JUNE 1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  PARKER, David L.
      REGISTRATION NUMBER:  32,165
      REFERENCE/DOCKET NUMBER:  ARCD090
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  512-320-7200
      TELEFAX:  713-789-2679
  INFORMATION FOR SEQ ID NO:  9:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  170 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
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 PCT-US95-04600-24 ; Sequence 24, Application PC/TUS9504600
  (from "/srch/iaa/PCTUS_COMB.pep")
 Sequence 24, Application PC/TUS9504600
  GENERAL INFORMATION:
    APPLICANT:  LA JOLLA CANCER RESEARCH FOUNDATION
    TITLE OF INVENTION:  Interaction of Proteins Involved in
    TITLE OF INVENTION:  a Cell Death Pathway
    NUMBER OF SEQUENCES:  29
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Campbell and Flores
      STREET:  4370 La Jolla Village Drive, Suite 700
      CITY:  San Diego
      STATE:  California
      COUNTRY:  USA
      ZIP:  92122
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  PCT/US95/04600
      FILING DATE:  12-APR-1995
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME:  Imbra, Richard J.
      REGISTRATION NUMBER:  37,643
      REFERENCE/DOCKET NUMBER:  FP-LJ 1361
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (619) 535-9001
      TELEFAX:  (619) 535-8949
  INFORMATION FOR SEQ ID NO:  24:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                 97      105
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'iaa = issued

NUMBER OF SEQ ID NOS: 38837
SOFTWARE: Molecular Dynamics Sequence Listing Engine
SEQ ID NO 36116
LENGTH: 185
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AL117381.9
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.99
OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
Found using 'wax058' (wax058.key)

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84 KQALREAGDEFELRYRRAFSDLTSQLHIT
94 102

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1 match found in sequence:
PCT-US02-03547-29 ; Sequence 29, Application PC/TUS0203547
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 29, Application PC/TUS0203547
GENERAL INFORMATION:
APPLICANT: THE BURNHAM INSTITUTE
TITLE OF INVENTION: APOPTOSIS MODULATOR BCL-B AND METHODS FOR MAKING AND
TITLE OF INVENTION: USING SAME
FILE REFERENCE: 087102-0272558
CURRENT APPLICATION NUMBER: PCT/US02/03547
CURRENT FILING DATE: 2002-02-07
PRIOR APPLICATION NUMBER: 60/267,166
PRIOR FILING DATE: 2001-02-07
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 29
LENGTH: 25
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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5 KQALREAGDEFELRYRRAFSD
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1 match found in sequence:
PCT-US02-32727-26726 ; Sequence 26726, Application PC/TUS0232727
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 26726, Application PC/TUS0232727
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David
APPLICANT: Bhatia, Ajay
APPLICANT: Maisonneuve, Jean Francois
APPLICANT: Zhang, Yanni
APPLICANT: Wang, Siqing
APPLICANT: Jen, Shyian
APPLICANT: Lodes, Michael
APPLICANT: Benson, Darin
APPLICANT: Jones, Robert
APPLICANT: Carter, Darrick
APPLICANT: Barth, Brenda
APPLICANT: Douglass,John
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes Vu
FILE REFERENCE: 210121.514C1
CURRENT APPLICATION NUMBER: PCT/US02/32727
CURRENT FILING DATE: 2002-10-11

NUMBER OF SEQ ID NOS: 30992
SEQ ID NO 26726
LENGTH: 771
TYPE: PRT
ORGANISM: Propioni acnes
FEATURE:
NAME/KEY: unsure
LOCATION: (621)
OTHER INFORMATION: Xaa = Any Amino Acid
FEATURE:
NAME/KEY: unsure
LOCATION: (625)
OTHER INFORMATION: Xaa = Any Amino Acid
Found using 'wax058' (wax058.key)

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1 match found in sequence:
PCT-US02-32727-30196 ; Sequence 30196, Application PC/TUS0232727
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 30196, Application PC/TUS0232727
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David
APPLICANT: Bhatia, Ajay
APPLICANT: Maisonneuve, Jean Francois
APPLICANT: Zhang, Yanni
APPLICANT: Wang, Siqing
APPLICANT: Jen, Shyian
APPLICANT: Lodes, Michael
APPLICANT: Benson, Darin
APPLICANT: Jones, Robert
APPLICANT: Carter, Darrick
APPLICANT: Barth, Brenda
APPLICANT: Douglass,John
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes Vul
FILE REFERENCE: 210121.514C1
CURRENT APPLICATION NUMBER: PCT/US02/32727
CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
SEQ ID NO 30196
LENGTH: 1480
TYPE: PRT
ORGANISM: Propionibacterium acnes
Found using 'wax058' (wax058.key)

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670 678

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1 match found in sequence:
PCT-US03-28227-4397 ; Sequence 4397, Application PC/TUS0328227
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 4397, Application PC/TUS0328227
GENERAL INFORMATION:
APPLICANT: INCYTE CORPORATION; SCHMIDT, Jeanette P.;
APPLICANT: WRIGHT, Rachel J.; BRUNS, Christopher M.;
APPLICANT: MARJANOVIC, Mirjana M.; SHEN, Fan;
APPLICANT: HARTSHORNE, Toinette A.; SUCHOROLSKI, Martin;
APPLICANT: ALTUS, Christina M.; PITTS, Steven J.;

APPLICANT: ELDER, Linda V.; MOONEY, Elizabeth M.;
APPLICANT: DELEGEANE, Angelo M.; PANESAR, Iqbal S.;
APPLICANT: BANVILLE, Steven C.; REDDY, Thirupathi P.;
APPLICANT: STEVENS, Kristian A.; BLANCHARD, John L.;
APPLICANT: PANZER, Scott R.; WANG, Xinhao;
APPLICANT: AU, Alan P.; GERSTIN, Edward H., Jr.;
APPLICANT: PERALTA, Careyna H.; ANDERSON, Scott E.;
APPLICANT: RIOUX, Pierre; SHEN, Edward J.;
APPLICANT: WU, Mingham C.; STUVE, Laura L.;
APPLICANT: LAGACE, Robert E.; SPIRO, Peter A.;
APPLICANT: STEWART, Elizabeth A.; WINGROVE, James A.;
APPLICANT: VITT, Ursula A.; KIRTON, Edward;
APPLICANT: XU, Yuming; KWONG, Mary;
APPLICANT: POLICKY, Jennifer L.; HURWITZ, Bonnie L.;
APPLICANT: MA, Yan; JACKSON, Jennifer L.;
APPLICANT: GIETZEN, Darryl; PATURY, Srikanth;
APPLICANT: SHI, Xiaobing; SUAREZ, Charlyn J.
TITLE OF INVENTION: MOLECULES FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: PN-0100 PCT
CURRENT APPLICATION NUMBER: PCT/US03/28227
CURRENT FILING DATE: 2003-09-12
PRIOR APPLICATION NUMBER: US 60/410,260
PRIOR FILING DATE: 2002-09-12
PRIOR APPLICATION NUMBER: US 60/410,259
PRIOR FILING DATE: 2002-09-12
NUMBER OF SEQ ID NOS: 5444
SOFTWARE: PERL Program
SEQ ID NO 4397
LENGTH: 185
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No: 959835.PT55p
Found using 'wax058' (wax058.key)

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1 match found in sequence:
US-08-160-067-8 ; Sequence 8, Application US/08160067
(from "/srch/paa/US081_COMB.pep")
Sequence 8, Application US/08160067
GENERAL INFORMATION:
APPLICANT: KIEFER, MICHAEL C.
APPLICANT: BARR, PHILIP J.
TITLE OF INVENTION: NOVEL ANTI-APOPTOTIC PROTEIN, DNA
TITLE OF INVENTION: ENCODING THE PROTEIN AND METHODS OF USE THEREOF
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/160,067
FILING DATE: 30-NOV-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23647-20007.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
TELEFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
Found using 'wax058' (wax058.key)

...

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

...

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1 match found in sequence:
US-08-320-157-14 ; Sequence 14, Application US/08320157
(from "/srch/paa/US083_COMB.pep")
Sequence 14, Application US/08320157
GENERAL INFORMATION:
APPLICANT: KIEFER, MICHAEL C.
APPLICANT: BARR, PHILIP J.
TITLE OF INVENTION: NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
TITLE OF INVENTION: ENCODING THE PROTEINS AND METHODS OF USE THEREOF
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/320,157
FILING DATE: 07-OCT-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23647-20007.20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
TELEFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
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...

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1 match found in sequence:
 US-08-470-670-2 ; Sequence 2, Application US/08470670
  (from "/srch/paa/US084_COMB.pep")
 Sequence 2, Application US/08470670
  GENERAL INFORMATION:
    APPLICANT:  Thompson, Craig B. B.
    APPLICANT:  Boise, Lawrence H.
    APPLICANT:  Nunez, Gabriel
    TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE:  COMPOSITIONS
    TITLE OF INVENTION:  AND METHODS
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P. O. Box 4433
      CITY:  Houston
      STATE:  TX
      COUNTRY:  USA
      ZIP:  77210-4433
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/470,670
      FILING DATE:
      CLASSIFICATION:  530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/081,448
      FILING DATE:  22-JUN-1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  Highlander, Steven L.
      REGISTRATION NUMBER:  37,642
      REFERENCE/DOCKET NUMBER:  ARCD:090--1\HYL
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (512) 418-3000
      TELEFAX:  (512) 474-7577
      TELEX:  79-0924
   INFORMATION FOR SEQ ID NO:  2:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  190 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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83       RQALRDAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
 US-08-470-670-7 ; Sequence 7, Application US/08470670
  (from "/srch/paa/US084_COMB.pep")
 Sequence 7, Application US/08470670
  GENERAL INFORMATION:
    APPLICANT:  Thompson, Craig B. B.
    APPLICANT:  Boise, Lawrence H.
    APPLICANT:  Nunez, Gabriel
    TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE:  COMPOSITIONS
    TITLE OF INVENTION:  AND METHODS
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P. O. Box 4433
      CITY:  Houston
      STATE:  TX
      COUNTRY:  USA
      ZIP:  77210-4433
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/470,670
      FILING DATE:
      CLASSIFICATION:  530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/081,448
      FILING DATE:  22-JUN-1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  Highlander, Steven L.
      REGISTRATION NUMBER:  37,642
      REFERENCE/DOCKET NUMBER:  ARCD:090--1\HYL
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (512) 418-3000
      TELEFAX:  (512) 474-7577
      TELEX:  79-0924
   INFORMATION FOR SEQ ID NO:  7:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                 97       105

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1 match found in sequence:
 US-08-470-670-9 ; Sequence 9, Application US/08470670
  (from "/srch/paa/US084_COMB.pep")
 Sequence 9, Application US/08470670
  GENERAL INFORMATION:
    APPLICANT:  Thompson, Craig B. B.
    APPLICANT:  Boise, Lawrence H.
    APPLICANT:  Nunez, Gabriel
    TITLE OF INVENTION:  VERTEBRATE APOPTOSIS GENE:  COMPOSITIONS
    TITLE OF INVENTION:  AND METHODS
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Arnold, White & Durkee
      STREET:  P. O. Box 4433
      CITY:  Houston
      STATE:  TX
      COUNTRY:  USA
      ZIP:  77210-4433
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/470,670
      FILING DATE:
      CLASSIFICATION:  530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  US 08/081,448
      FILING DATE:  22-JUN-1993
    ATTORNEY/AGENT INFORMATION:
      NAME:  Highlander, Steven L.
      REGISTRATION NUMBER:  37,642
      REFERENCE/DOCKET NUMBER:  ARCD:090--1\HYL
    TELECOMMUNICATION INFORMATION:
```

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     TELEPHONE:  (512) 418-3000
     TELEFAX:  (512) 474-7577
     TELEX:  79-0924
  INFORMATION FOR SEQ ID NO:  9:
    SEQUENCE CHARACTERISTICS:
     LENGTH:  170 amino acids
     TYPE:  amino acid
     TOPOLOGY:  linear
   MOLECULE TYPE:  protein
 Found using 'wax058' (wax058.key)

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                97      105

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1 match found in sequence:
 US-08-634-995-4 ; Sequence 4, Application US/08634995
  (from "/srch/paa/US086_COMB.pep")
 Sequence 4, Application US/08634995
  GENERAL INFORMATION:
    APPLICANT:  Ferran, Christiane
    APPLICANT:  Bach, Fritz H.
    TITLE OF INVENTION:  Anti-Apoptotic Gene Therapy for
    TITLE OF INVENTION:  Transplantation and Inflammatory Conditions and Means
    TITLE OF INVENTION:  Therefor
    NUMBER OF SEQUENCES:  4
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Sandoz Corp.
      STREET:  59 Route 10
      CITY:  East Hanover
      STATE:  New Jersey
      COUNTRY:  USA
      ZIP:  07936
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/634,995
      FILING DATE:  19-APR-1996
      CLASSIFICATION:  424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/601,515
      FILING DATE:  14-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME:  Furman, Diane E.
      REGISTRATION NUMBER:  31,104
      REFERENCE/DOCKET NUMBER:  618-7234/CIP
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  201-503-7332
      TELEFAX:  201-503-8807
  INFORMATION FOR SEQ ID NO:  4:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      STRANDEDNESS:
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
    HYPOTHETICAL:  NO
    ANTI-SENSE:  NO
 Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105

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1 match found in sequence:
 US-08-827-356-4540 ; Sequence 4540, Application US/08827356
  (from "/srch/paa/US088_COMB.pep")
 Sequence 4540, Application US/08827356
  GENERAL INFORMATION:
    APPLICANT:  George H. Shimer, Jr.
    APPLICANT:  George H. Miller
    APPLICANT:  Roberta S. Hare
    APPLICANT:  Karen J. Shaw
    TITLE OF INVENTION:  STAPHYLOCOCCUS AUREUS RELATED
    TITLE OF INVENTION:  COMPOSITIONS AND METHODS
    NUMBER OF SEQUENCES:  5574
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Schering-Plough Corporation
      STREET:  2000 Galloping Hill Road
      CITY:  Kenilworth
      STATE:  New Jersey
      COUNTRY:  USA
      ZIP:  07033-0530
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/827,356
      FILING DATE:  01-APR-1997
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  60/014,477
      FILING DATE:  01-APR-1996
      APPLICATION NUMBER:  60/016,743
      FILING DATE:  02-MAY-1996
      APPLICATION NUMBER:  60/020,016
      FILING DATE:  14-JUN-1996
   INFORMATION FOR SEQ ID NO:  4540:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  178 amino acids
      TYPE:  amino acid
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
    HYPOTHETICAL:  YES
    ORIGINAL SOURCE:
      ORGANISM:  Staphylococcus aureus
    FEATURE:
      NAME/KEY:  misc_feature
      LOCATION:  1...178
 Found using 'wax058' (wax058.key)

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1       QSLGERGIYIYSIKYKKIFIFNILVLIIG
                11      19

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1 match found in sequence:
 US-08-915-243-4 ; Sequence 4, Application US/08915243
  (from "/srch/paa/US089_COMB.pep")
 Sequence 4, Application US/08915243
  GENERAL INFORMATION:
    APPLICANT:  Ferran, Christiane
    APPLICANT:  Bach, Fritz H.
    TITLE OF INVENTION:  Anti-Apoptotic Gene Therapy for
    TITLE OF INVENTION:  Transplantation and Inflammatory Conditions and Means
    TITLE OF INVENTION:  Therefor
    NUMBER OF SEQUENCES:  4
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Sandoz Corp.
      STREET:  59 Route 10
```

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      CITY:  East Hanover
      STATE:  New Jersey
      COUNTRY:  USA
      ZIP:  07936
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/915,243
      FILING DATE:
      CLASSIFICATION:  536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/634,995
      FILING DATE:  19-APR-1996
      APPLICATION NUMBER:  08/601,515
      FILING DATE:  14-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME:  Furman, Diane E.
      REGISTRATION NUMBER:  31,104
      REFERENCE/DOCKET NUMBER:  618-7234/CIP
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  201-503-7332
      TELEFAX:  201-503-8807
  INFORMATION FOR SEQ ID NO:  4:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  233 amino acids
      TYPE:  amino acid
      STRANDEDNESS:
      TOPOLOGY:  linear
    MOLECULE TYPE:  protein
    HYPOTHETICAL:  NO
    ANTI-SENSE:  NO
 Found using 'wax058' (wax058.key)

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                    97      105

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1 match found in sequence:
 US-08-935-088-26 ; Sequence 26, Application US/08935088
  (from "/srch/paa/US089_COMB.pep")
 Sequence 26, Application US/08935088
  GENERAL INFORMATION:
    APPLICANT:  CHITTENDEN, Thomas D.
    TITLE OF INVENTION:  BCL-Y SPECIFIC ANTIBODIES
    NUMBER OF SEQUENCES:  31
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Hale and Dorr LLP
      STREET:  1455 Pennsylvania Avenue, N.W.
      CITY:  Washington
      STATE:  D.C.
      ZIP:  20004
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/08/935,088
      FILING DATE:  Herewith
      CLASSIFICATION:  530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/321,071
      FILING DATE:  11-OCT-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:  08/287,427
      FILING DATE:  09-AUG-1994
    ATTORNEY/AGENT INFORMATION:
      NAME:  WIXON, HENRY N.
      REGISTRATION NUMBER:  32,073
      REFERENCE/DOCKET NUMBER:  104322.121DIV
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  202-942-8459
      TELEFAX:  202-942-8484
  INFORMATION FOR SEQ ID NO:  26:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  49 amino a6cids
      TYPE:  amino acid
      STRANDEDNESS:  single
      TOPOLOGY:  linear
    MOLECULE TYPE:  peptide
 Found using 'wax058' (wax058.key)

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2        KQALREAGDEFELRYRRAFSDLTSQLHIT
                    12      20

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1 match found in sequence:
 US-09-007-219-6 ; Sequence 6, Application US/09007219
  (from "/srch/paa/US090_COMB.pep")
 Sequence 6, Application US/09007219
  GENERAL INFORMATION:
    APPLICANT:  Clarke, Michael F.
    APPLICANT:  Wicha, Max
    APPLICANT:  Nunez, Gabriel
    APPLICANT:  Han, Jeffrey
    APPLICANT:  Inohara, Naohiro
    TITLE OF INVENTION:  GENE THERAPY APPROACHES TO TARGET CELL DEATH FOR CANCER TREAT
    NUMBER OF SEQUENCES:  9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE:  Harness, Dickey & Pierce, P.L.C.
      STREET:  P.O. Box 828
      CITY:  Bloomfield Hills
      STATE:  Michigan
      COUNTRY:  U.S.A.
      ZIP:  48303
    COMPUTER READABLE FORM:
      MEDIUM TYPE:  Floppy disk
      COMPUTER:  IBM PC compatible
      OPERATING SYSTEM:  PC-DOS/MS-DOS
      SOFTWARE:  PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER:  US/09/007,219
      FILING DATE:  14-JAN-1998
      CLASSIFICATION:  424
    ATTORNEY/AGENT INFORMATION:
      NAME:  Smith, DeAnn F.
      REFERENCE/DOCKET NUMBER:  2115S-001308
    TELECOMMUNICATION INFORMATION:
      TELEPHONE:  (248) 641-1600
      TELEFAX:  (248) 641-0270
      TELEX:  287637
  INFORMATION FOR SEQ ID NO:  6:
    SEQUENCE CHARACTERISTICS:
      LENGTH:  23 amino acids
      TYPE:  amino acid
      STRANDEDNESS:  unknown
      TOPOLOGY:  unknown
    MOLECULE TYPE:  protein
    FRAGMENT TYPE:  internal
 Found using 'wax058' (wax058.key)

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4       KQALREAGDEFELRYRRAFS
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1 match found in sequence:
 US-09-155-327B-7 ; Sequence 7, Application US/09155327B
  (from "/srch/paa/US091_COMB.pep")
 Sequence 7, Application US/09155327B
 GENERAL INFORMATION:
  APPLICANT:  AMRAD Operations Pty Ltd
  TITLE OF INVENTION:  A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE:  2096584
  CURRENT APPLICATION NUMBER: US/09/155,327B
  CURRENT FILING DATE:  1999-03-29
  PRIOR APPLICATION NUMBER:  PN8965
  PRIOR FILING DATE:  1996-03-27
  NUMBER OF SEQ ID NOS:  9
  SOFTWARE:  PatentIn Ver. 2.1
 SEQ ID NO 7
   LENGTH: 193
   TYPE: PRT
   ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                  53      61

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1 match found in sequence:
 US-09-155-327B-9 ; Sequence 9, Application US/09155327B
  (from "/srch/paa/US091_COMB.pep")
 Sequence 9, Application US/09155327B
 GENERAL INFORMATION:
  APPLICANT:  AMRAD Operations Pty Ltd
  TITLE OF INVENTION:  A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE:  2096584
  CURRENT APPLICATION NUMBER: US/09/155,327B
  CURRENT FILING DATE:  1999-03-29
  PRIOR APPLICATION NUMBER:  PN8965
  PRIOR FILING DATE:  1996-03-27
  NUMBER OF SEQ ID NOS:  9
  SOFTWARE:  PatentIn Ver. 2.1
 SEQ ID NO 9
   LENGTH: 192
   TYPE: PRT
   ORGANISM: Mouse
 Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                  53      61

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1 match found in sequence:
 US-09-155-327E-7 ; Sequence 7, Application US/09155327E
  (from "/srch/paa/US091_COMB.pep")
 Sequence 7, Application US/09155327E
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 2096584
  CURRENT APPLICATION NUMBER: US/09/155,327E
  CURRENT FILING DATE:  1999-03-29
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
  NUMBER OF SEQ ID NOS: 9
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 7
   LENGTH: 193
   TYPE: PRT
   ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                  53      61

...

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1 match found in sequence:
 US-09-155-327E-9 ; Sequence 9, Application US/09155327E
  (from "/srch/paa/US091_COMB.pep")
 Sequence 9, Application US/09155327E
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 2096584
  CURRENT APPLICATION NUMBER: US/09/155,327E
  CURRENT FILING DATE:  1999-03-29
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
  NUMBER OF SEQ ID NOS: 9
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 9
   LENGTH: 193
   TYPE: PRT
   ORGANISM: Mouse
 Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
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1 match found in sequence:
 US-09-155-327F-7 ; Sequence 7, Application US/09155327F
  (from "/srch/paa/US091_COMB.pep")
 Sequence 7, Application US/09155327F
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 2096584
  CURRENT APPLICATION NUMBER: US/09/155,327F
  CURRENT FILING DATE:  1996-03-27
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
  NUMBER OF SEQ ID NOS: 15
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 7
   LENGTH: 193
   TYPE: PRT
   ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)
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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
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1 match found in sequence:
US-09-155-327F-9 ; Sequence 9, Application US/09155327F
(from "/srch/paa/US091_COMB.pep")
Sequence 9, Application US/09155327F
GENERAL INFORMATION:
APPLICANT: AMRAD Operations Pty Ltd
TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
TITLE OF INVENTION: FAMILY OF APOPTOSIS-CONTROLLING GENES
FILE REFERENCE: 2096584
CURRENT APPLICATION NUMBER: US/09/155,327F
CURRENT FILING DATE: 1996-03-27
PRIOR APPLICATION NUMBER: PN8965
PRIOR FILING DATE: 1996-03-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 9
LENGTH: 193
TYPE: PRT
ORGANISM: Mouse
Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                   53      61
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1 match found in sequence:
US-09-155-327F-10 ; Sequence 10, Application US/09155327F
(from "/srch/paa/US091_COMB.pep")
Sequence 10, Application US/09155327F
GENERAL INFORMATION:
APPLICANT: AMRAD Operations Pty Ltd
TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
TITLE OF INVENTION: FAMILY OF APOPTOSIS-CONTROLLING GENES
FILE REFERENCE: 2096584
CURRENT APPLICATION NUMBER: US/09/155,327F
CURRENT FILING DATE: 1996-03-27
PRIOR APPLICATION NUMBER: PN8965
PRIOR FILING DATE: 1996-03-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 10
LENGTH: 333
TYPE: PRT
ORGANISM: murine
Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
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1 match found in sequence:
US-09-155-327F-12 ; Sequence 12, Application US/09155327F
(from "/srch/paa/US091_COMB.pep")
Sequence 12, Application US/09155327F
GENERAL INFORMATION:
APPLICANT: AMRAD Operations Pty Ltd
TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
TITLE OF INVENTION: FAMILY OF APOPTOSIS-CONTROLLING GENES
FILE REFERENCE: 2096584
CURRENT APPLICATION NUMBER: US/09/155,327F
CURRENT FILING DATE: 1996-03-27
PRIOR APPLICATION NUMBER: PN8965
PRIOR FILING DATE: 1996-03-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
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1 match found in sequence:
US-09-155-327G-7 ; Sequence 7, Application US/09155327G
(from "/srch/paa/US091_COMB.pep")
Sequence 7, Application US/09155327G
GENERAL INFORMATION:
APPLICANT: AMRAD Operations Pty Ltd
TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
TITLE OF INVENTION: FAMILY OF APOPTOSIS-CONTROLLING GENES
FILE REFERENCE: 2096584
CURRENT APPLICATION NUMBER: US/09/155,327G
CURRENT FILING DATE: 1999-03-29
PRIOR APPLICATION NUMBER: PN8965
PRIOR FILING DATE: 1996-03-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 7
LENGTH: 193
TYPE: PRT
ORGANISM: HUMAN
Found using 'wax058' (wax058.key)

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
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1 match found in sequence:
US-09-155-327G-9 ; Sequence 9, Application US/09155327G
(from "/srch/paa/US091_COMB.pep")
Sequence 9, Application US/09155327G
GENERAL INFORMATION:
APPLICANT: AMRAD Operations Pty Ltd
TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
TITLE OF INVENTION: FAMILY OF APOPTOSIS-CONTROLLING GENES
FILE REFERENCE: 2096584
CURRENT APPLICATION NUMBER: US/09/155,327G
CURRENT FILING DATE: 1999-03-29
PRIOR APPLICATION NUMBER: PN8965
PRIOR FILING DATE: 1996-03-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 9
LENGTH: 193

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   TYPE: PRT
   ORGANISM: Mouse
 Found using 'wax058' (wax058.key)

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43       HQAMRAAGDEFETRFRRTFSDLAAQLHVT
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1 match found in sequence:
 US-09-155-327G-10 ; Sequence 10, Application US/09155327G
  (from "/srch/paa/US091_COMB.pep")
 Sequence 10, Application US/09155327G
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 2096584
  CURRENT APPLICATION NUMBER: US/09/155,327G
  CURRENT FILING DATE:  1999-03-29
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
  NUMBER OF SEQ ID NOS: 15
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 10
   LENGTH: 333
   TYPE: PRT
   ORGANISM: murine
 Found using 'wax058' (wax058.key)

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43       HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                  53      61

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1 match found in sequence:
 US-09-155-327G-12 ; Sequence 12, Application US/09155327G
  (from "/srch/paa/US091_COMB.pep")
 Sequence 12, Application US/09155327G
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-2, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 2096584
  CURRENT APPLICATION NUMBER: US/09/155,327G
  CURRENT FILING DATE:  1999-03-29
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
  NUMBER OF SEQ ID NOS: 15
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 12
   LENGTH: 233
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                  97      105

...

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1 match found in sequence:
 US-09-456-357-48 ; Sequence 48, Application US/09456357
  (from "/srch/paa/US094_COMB.pep")
 Sequence 48, Application US/09456357
 GENERAL INFORMATION:
  APPLICANT: 3921-1-1-1
  TITLE OF INVENTION: VIRAL VECTORS ENCODING APOPTOSIS-INDUCING PROTEINS AND
  TITLE OF INVENTION: METHODS FOR MAKING AND USING THE SAME
  FILE REFERENCE: 3921-1-1-1
  CURRENT APPLICATION NUMBER: US/09/456,357
  CURRENT FILING DATE: 1999-12-08
  EARLIER APPLICATION NUMBER: 60/134,416
  EARLIER FILING DATE: 1999-05-17
  EARLIER APPLICATION NUMBER: 09/087,195
  EARLIER FILING DATE: 1998-05-29
  EARLIER APPLICATION NUMBER: 08/378,507
  EARLIER FILING DATE: 1995-01-26
  EARLIER APPLICATION NUMBER: 08/250,478
  EARLIER FILING DATE: 1994-05-27
  NUMBER OF SEQ ID NOS: 50
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 48
   LENGTH: 233
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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                  |-------|
87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                  97      105

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1 match found in sequence:
 US-09-508-745-2 ; Sequence 2, Application US/09508745
  (from "/srch/paa/US095_COMB.pep")
 Sequence 2, Application US/09508745
 GENERAL INFORMATION:
  APPLICANT: Cory, Suzanne
  APPLICANT:  Adams, Jerry
  APPLICANT:  Print, Cris
  APPLICANT:  Gibson, Leonie
  APPLICANT:  Koentgen, Frank
  TITLE OF INVENTION: A METHOD OF TREATMENT AND AN ANIMAL MODEL USEFUL FOR
  TITLE OF INVENTION:  SAME
  FILE REFERENCE: 13464
  CURRENT APPLICATION NUMBER: US/09/508,745
  CURRENT FILING DATE:  2000-07-12
  PRIOR APPLICATION NUMBER: PCT/AU98/00764
  PRIOR FILING DATE: 1998-09-16
  NUMBER OF SEQ ID NOS: 8
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 2
   LENGTH: 193
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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                  |-------|
43       HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                  53      61

...

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1 match found in sequence:
 US-09-508-745-4 ; Sequence 4, Application US/09508745
  (from "/srch/paa/US095_COMB.pep")
```

Sequence 4, Application US/09508745
GENERAL INFORMATION:
APPLICANT: Cory, Suzanne
APPLICANT: Adams, Jerry
APPLICANT: Print, Cris
APPLICANT: Gibson, Leonie
APPLICANT: Koentgen, Frank
TITLE OF INVENTION: A METHOD OF TREATMENT AND AN ANIMAL MODEL USEFUL FOR
TITLE OF INVENTION: SAME
FILE REFERENCE: 13464
CURRENT APPLICATION NUMBER: US/09/508,745
CURRENT FILING DATE: 2000-07-12
PRIOR APPLICATION NUMBER: PCT/AU98/00764
PRIOR FILING DATE: 1998-09-16
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 193
TYPE: PRT
ORGANISM: Mus musculus
Found using 'wax058' (wax058.key)

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                    |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                    53      61
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1 match found in sequence:
US-09-508-745-6 ; Sequence 6, Application US/09508745
(from "/srch/paa/US095_COMB.pep")
Sequence 6, Application US/09508745
GENERAL INFORMATION:
APPLICANT: Cory, Suzanne
APPLICANT: Adams, Jerry
APPLICANT: Print, Cris
APPLICANT: Gibson, Leonie
APPLICANT: Koentgen, Frank
TITLE OF INVENTION: A METHOD OF TREATMENT AND AN ANIMAL MODEL USEFUL FOR
TITLE OF INVENTION: SAME
FILE REFERENCE: 13464
CURRENT APPLICATION NUMBER: US/09/508,745
CURRENT FILING DATE: 2000-07-12
PRIOR APPLICATION NUMBER: PCT/AU98/00764
PRIOR FILING DATE: 1998-09-16
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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                    |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                    53      61
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1 match found in sequence:
US-09-508-745-8 ; Sequence 8, Application US/09508745
(from "/srch/paa/US095_COMB.pep")
Sequence 8, Application US/09508745
GENERAL INFORMATION:
APPLICANT: Cory, Suzanne
APPLICANT: Adams, Jerry
APPLICANT: Print, Cris
APPLICANT: Gibson, Leonie
APPLICANT: Koentgen, Frank
TITLE OF INVENTION: A METHOD OF TREATMENT AND AN ANIMAL MODEL USEFUL FOR
TITLE OF INVENTION: SAME
FILE REFERENCE: 13464
CURRENT APPLICATION NUMBER: US/09/508,745
CURRENT FILING DATE: 2000-07-12
PRIOR APPLICATION NUMBER: PCT/AU98/00764
PRIOR FILING DATE: 1998-09-16
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 193
TYPE: PRT
ORGANISM: Mus musculus
Found using 'wax058' (wax058.key)

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                    |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                    53      61
```

...

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1 match found in sequence:
US-09-544-664-12 ; Sequence 12, Application US/09544664
(from "/srch/paa/US095_COMB.pep")
Sequence 12, Application US/09544664
GENERAL INFORMATION:
APPLICANT: Huang, Ziwei
APPLICANT: Wang, Jialun
APPLICANT: Zhang, Zhijia
APPLICANT: Shan, Simei
APPLICANT: Lu, Zhixian
TITLE OF INVENTION: Ehancement of Peptide Cellular Uptake
FILE REFERENCE: 8321-68
CURRENT APPLICATION NUMBER: US/09/544,664
CURRENT FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/128,202
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 58
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 27
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Peptide
OTHER INFORMATION: segment from BH3 domain of a Bcl-2 superfamily
OTHER INFORMATION: polypeptide
Found using 'wax058' (wax058.key)

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                    |-------|
9       RQALRDAGDEFELRYRRAF
                    19      27
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1 match found in sequence:
US-09-544-664-13 ; Sequence 13, Application US/09544664
(from "/srch/paa/US095_COMB.pep")
Sequence 13, Application US/09544664
GENERAL INFORMATION:
APPLICANT: Huang, Ziwei
APPLICANT: Wang, Jialun
APPLICANT: Zhang, Zhijia
APPLICANT: Shan, Simei
APPLICANT: Lu, Zhixian
TITLE OF INVENTION: Ehancement of Peptide Cellular Uptake
FILE REFERENCE: 8321-68

CURRENT APPLICATION NUMBER: US/09/544,664
CURRENT FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/128,202
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 58
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 13
LENGTH: 27
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Peptide
OTHER INFORMATION: segment from BH3 domain of a Bcl-2 superfamily
OTHER INFORMATION: polypeptide
Found using 'wax058' (wax058.key)

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9 KQALREAGDEFELRYRRAF
19 27

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1 match found in sequence:
US-09-544-664-24 ; Sequence 24, Application US/09544664
(from "/srch/paa/US095_COMB.pep")
Sequence 24, Application US/09544664
GENERAL INFORMATION:
APPLICANT: Huang, Ziwei
APPLICANT: Wang, Jialun
APPLICANT: Zhang, Zhijia
APPLICANT: Shan, Simei
APPLICANT: Lu, Zhixian
TITLE OF INVENTION: Ehancement of Peptide Cellular Uptake
FILE REFERENCE: 8321-68
CURRENT APPLICATION NUMBER: US/09/544,664
CURRENT FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/128,202
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 58
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 24
LENGTH: 27
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Peptide
OTHER INFORMATION: segment from BH3 domain of a Bcl-2 superfamily
OTHER INFORMATION: polypeptide
Found using 'wax058' (wax058.key)

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9 HQAMRAAGDEFETRFRRTF
19 27

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1 match found in sequence:
US-09-544-664B-12 ; Sequence 12, Application US/09544664B
(from "/srch/paa/US095_COMB.pep")
Sequence 12, Application US/09544664B
GENERAL INFORMATION:
APPLICANT: Huang, Ziwei
APPLICANT: Wang, Jialun
APPLICANT: Zhang, Zhijia
APPLICANT: Shan, Simei
APPLICANT: Lu, Zhixian
TITLE OF INVENTION: Ehancement of Peptide Cellular Uptake
FILE REFERENCE: 8321-68
CURRENT APPLICATION NUMBER: US/09/544,664B
CURRENT FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: PCT/US00/09352
PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/128,202
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 58
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 27
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Peptide
OTHER INFORMATION: segment from BH3 domain of a Bcl-2 superfamily
OTHER INFORMATION: polypeptide
Found using 'wax058' (wax058.key)

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9 RQALRDAGDEFELRYRRAF
19 27

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1 match found in sequence:
US-09-544-664B-13 ; Sequence 13, Application US/09544664B
(from "/srch/paa/US095_COMB.pep")
Sequence 13, Application US/09544664B
GENERAL INFORMATION:
APPLICANT: Huang, Ziwei
APPLICANT: Wang, Jialun
APPLICANT: Zhang, Zhijia
APPLICANT: Shan, Simei
APPLICANT: Lu, Zhixian
TITLE OF INVENTION: Ehancement of Peptide Cellular Uptake
FILE REFERENCE: 8321-68
CURRENT APPLICATION NUMBER: US/09/544,664B
CURRENT FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: PCT/US00/09352
PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/128,202
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 58
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 13
LENGTH: 27
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Peptide
OTHER INFORMATION: segment from BH3 domain of a Bcl-2 superfamily
OTHER INFORMATION: polypeptide
Found using 'wax058' (wax058.key)

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9 KQALREAGDEFELRYRRAF
19 27

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1 match found in sequence:
US-09-544-664B-24 ; Sequence 24, Application US/09544664B
(from "/srch/paa/US095_COMB.pep")
Sequence 24, Application US/09544664B
GENERAL INFORMATION:
APPLICANT: Huang, Ziwei
APPLICANT: Wang, Jialun
APPLICANT: Zhang, Zhijia
APPLICANT: Shan, Simei
APPLICANT: Lu, Zhixian
TITLE OF INVENTION: Ehancement of Peptide Cellular Uptake
FILE REFERENCE: 8321-68
CURRENT APPLICATION NUMBER: US/09/544,664B
CURRENT FILING DATE: 2000-04-06

PRIOR APPLICATION NUMBER: PCT/US00/09352
PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/128,202
PRIOR FILING DATE: 1999-04-07
NUMBER OF SEQ ID NOS: 58
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 24
LENGTH: 27
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Peptide
OTHER INFORMATION: segment from BH3 domain of a Bcl-2 superfamily
OTHER INFORMATION: polypeptide
Found using 'wax058' (wax058.key)

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                  |-------|
9       HQAMRAAGDEFETRFRRTF
                  19      27
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1 match found in sequence:
US-09-611-529-6927 ; Sequence 6927, Application US/09611529
(from "/srch/paa/US096_COMB.pep")
Sequence 6927, Application US/09611529
GENERAL INFORMATION:
APPLICANT: George H. Shimer,Jr.
APPLICANT: George H. Miller
APPLICANT: Roberta S. Hare
APPLICANT: Karen J. Shaw
TITLE OF INVENTION: Staphylococcus aureus Related Compositions and Methods
FILE REFERENCE: 1034/1C963US1
CURRENT APPLICATION NUMBER: US/09/611,529
CURRENT FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/417,811
PRIOR FILING DATE: 1999-10-14
PRIOR APPLICATION NUMBER: US 09/353,718
PRIOR FILING DATE: 1999-07-14
PRIOR APPLICATION NUMBER: US 09/266,557
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,556
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,555
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,542
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,541
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/037,934
PRIOR FILING DATE: 1998-03-10
PRIOR APPLICATION NUMBER: US 09/036,720
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,338
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,334
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,221
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,137
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,082
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,081
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,079
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/035,913
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/035,744
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 08/827,356
PRIOR FILING DATE: 1997-04-01
PRIOR APPLICATION NUMBER: US 08/831,156
PRIOR FILING DATE: 1997-04-01
PRIOR APPLICATION NUMBER: US 60/014,477
PRIOR FILING DATE: 1996-04-01
PRIOR APPLICATION NUMBER: US 60/016,743
PRIOR FILING DATE: 1996-05-02
PRIOR APPLICATION NUMBER: US 60/020,016
PRIOR FILING DATE: 1996-06-14
NUMBER OF SEQ ID NOS: 7451
SEQ ID NO 6927
LENGTH: 178
TYPE: PRT
ORGANISM: Staphylococcus aureus
Found using 'wax058' (wax058.key)

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                  |-------|
1       QSLGERGIYIYSIKYKKIFIFNILVLIIG
                  11      19
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1 match found in sequence:
US-09-622-058-1 ; Sequence 1, Application US/09622058
(from "/srch/paa/US096_COMB.pep")
Sequence 1, Application US/09622058
GENERAL INFORMATION:
APPLICANT: NST NEUROSURVIVAL TECHNOLOGIES LTD., ET AL.
TITLE OF INVENTION: "Peptides and pharmaceutical compositions containing
TITLE OF INVENTION: same"
FILE REFERENCE: G04280PC
CURRENT APPLICATION NUMBER: US/09/622,058
CURRENT FILING DATE: 2000-08-24
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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        |-------|
1       FELRYRRAF
        1       9
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1 match found in sequence:
US-09-622-058-3 ; Sequence 3, Application US/09622058
(from "/srch/paa/US096_COMB.pep")
Sequence 3, Application US/09622058
GENERAL INFORMATION:
APPLICANT: NST NEUROSURVIVAL TECHNOLOGIES LTD., ET AL.
TITLE OF INVENTION: "Peptides and pharmaceutical compositions containing
TITLE OF INVENTION: same"
FILE REFERENCE: G04280PC
CURRENT APPLICATION NUMBER: US/09/622,058
CURRENT FILING DATE: 2000-08-24
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 3
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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        |-------|
1       FETRFRRTF
        1       9
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1 match found in sequence:
US-09-633-200-14 ; Sequence 14, Application US/09633200

(from "/srch/paa/US096_COMB.pep")
Sequence 14, Application US/09633200
GENERAL INFORMATION:
APPLICANT: KIEFER, MICHAEL C.
BARR, PHILIP J.
TITLE OF INVENTION: NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
ENCODING THE PROTEINS AND METHODS OF USE THEREOF
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/633,200
FILING DATE: 07-Aug-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/320,157
FILING DATE: 07-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23647-20007.20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
TELEFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 14:
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-09-639-245-2 ; Sequence 2, Application US/09639245
(from "/srch/paa/US096_COMB.pep")
Sequence 2, Application US/09639245
GENERAL INFORMATION:
APPLICANT: Youle et al.
TITLE OF INVENTION: RECEPTOR-MEDIATED UPTAKE OF AN EXTRACELLULAR BCL-XL
TITLE OF INVENTION: FUSION PROTEIN INHIBITS APOPTOSIS
FILE REFERENCE: 4239-55417
CURRENT APPLICATION NUMBER: US/09/639,245
CURRENT FILING DATE: 2000-08-15
PRIOR APPLICATION NUMBER: 60/149,220
PRIOR FILING DATE: 1999-08-16
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
LENGTH: 411
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: genetic fusion
Found using 'wax058' (wax058.key)

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107 KQALREAGDEFELRYRRAFSDLTSQLHIT
117 125

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1 match found in sequence:
US-09-639-245-8 ; Sequence 8, Application US/09639245
(from "/srch/paa/US096_COMB.pep")
Sequence 8, Application US/09639245
GENERAL INFORMATION:
APPLICANT: Youle et al.
TITLE OF INVENTION: RECEPTOR-MEDIATED UPTAKE OF AN EXTRACELLULAR BCL-XL
TITLE OF INVENTION: FUSION PROTEIN INHIBITS APOPTOSIS
FILE REFERENCE: 4239-55417
CURRENT APPLICATION NUMBER: US/09/639,245
CURRENT FILING DATE: 2000-08-15
PRIOR APPLICATION NUMBER: 60/149,220
PRIOR FILING DATE: 1999-08-16
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 485
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: genetic fusion
Found using 'wax058' (wax058.key)

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363 KQALREAGDEFELRYRRAFSDLTSQLHIT
373 381

...

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1 match found in sequence:
US-09-716-395-6 ; Sequence 6, Application US/09716395
(from "/srch/paa/US097A_COMB.pep")
Sequence 6, Application US/09716395
GENERAL INFORMATION:
APPLICANT: Fesik, Steven W.
APPLICANT: Petros, Andrew M.
APPLICANT: Yoon, Ho Sup
APPLICANT: Nettesheim, David G.
TITLE OF INVENTION: MUTANT BCL-2 PEPTIDES AND USES THEREOF
FILE REFERENCE: 6752.US.01
CURRENT APPLICATION NUMBER: US/09/716,395
CURRENT FILING DATE: 2000-11-20
NUMBER OF SEQ ID NOS: 37
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
LENGTH: 237
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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91 KQALREAGDEFELRYRRAFSDLTSQLHIT
101 109

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1 match found in sequence:
 US-09-734-846-2 ; Sequence 2, Application US/09734846
  (from "/srch/paa/US097A_COMB.pep")
 Sequence 2, Application US/09734846
 GENERAL INFORMATION:
  APPLICANT:  Bennett, C. Frank
  APPLICANT:  Dean, Nicholas M.
  APPLICANT:  Monia, Brett P.
  APPLICANT:  Nickoloff, Brian J.
  APPLICANT:  Zhang, QingQing
  TITLE OF INVENTION:  Antisense Modulation of bcl-x Expression
  FILE REFERENCE:  ISPH-0528
  CURRENT APPLICATION NUMBER: US/09/734,846
  CURRENT FILING DATE:  2000-12-12
  PRIOR APPLICATION NUMBER:      09/277,020
  PRIOR FILING DATE:      1998-03-26
  PRIOR APPLICATION NUMBER:      09/167,921
  PRIOR FILING DATE:      1998-10-07
  PRIOR APPLICATION NUMBER:  09/323,743
  PRIOR FILING DATE:  1999-06-02
  NUMBER OF SEQ ID NOS:  74
  SOFTWARE:  PatentIn Ver. 2.0
 SEQ ID NO 2
   LENGTH: 233
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                    97      105

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1 match found in sequence:
 US-09-760-485-847 ; Sequence 847, Application US/09760485
  (from "/srch/paa/US097B_COMB.pep")
 Sequence 847, Application US/09760485
 GENERAL INFORMATION:
  APPLICANT: Rosen et al.
  TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
  FILE REFERENCE: PJZ17
  CURRENT APPLICATION NUMBER: US/09/760,485
  CURRENT FILING DATE:  2001-01-16
  Prior application data removed - consult PALM or file wrapper
  NUMBER OF SEQ ID NOS: 1477
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 847
   LENGTH: 249
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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103      KQALREAGDEFELRYRRAFSDLTSQLHIT
                    113     121

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1 match found in sequence:
 US-09-791-537-15592 ; Sequence 15592, Application US/09791537
  (from "/srch/paa/US097B_COMB.pep")
 Sequence 15592, Application US/09791537
 GENERAL INFORMATION:
  APPLICANT: Bionomix, Inc.
  APPLICANT:  Debe, Derek
  APPLICANT:  Danzer, Joseph
  TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERS
  TITLE OF INVENTION:  METHODS OF USE THEREOF
  FILE REFERENCE: 261/210
  CURRENT APPLICATION NUMBER: US/09/791,537
  CURRENT FILING DATE:  2001-02-22
  NUMBER OF SEQ ID NOS: 153055
  SOFTWARE: PatentIn version 3.0
 SEQ ID NO 15592
   LENGTH: 229
   TYPE: PRT
   ORGANISM: Gallus gallus
 Found using 'wax058' (wax058.key)

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83       RQALRDAGDEFELRYRRAFSDLTSQLHIT
                    93      101

...

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1 match found in sequence:
 US-09-791-537-18288 ; Sequence 18288, Application US/09791537
  (from "/srch/paa/US097B_COMB.pep")
 Sequence 18288, Application US/09791537
 GENERAL INFORMATION:
  APPLICANT: Bionomix, Inc.
  APPLICANT:  Debe, Derek
  APPLICANT:  Danzer, Joseph
  TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERS
  TITLE OF INVENTION:  METHODS OF USE THEREOF
  FILE REFERENCE: 261/210
  CURRENT APPLICATION NUMBER: US/09/791,537
  CURRENT FILING DATE:  2001-02-22
  NUMBER OF SEQ ID NOS: 153055
  SOFTWARE: PatentIn version 3.0
 SEQ ID NO 18288
   LENGTH: 181
   TYPE: PRT
   ORGANISM: pdb 1BXLA
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 US-09-791-537-46654 ; Sequence 46654, Application US/09791537
  (from "/srch/paa/US097B_COMB.pep")
 Sequence 46654, Application US/09791537
 GENERAL INFORMATION:
  APPLICANT: Bionomix, Inc.
  APPLICANT:  Debe, Derek
  APPLICANT:  Danzer, Joseph
  TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERS
  TITLE OF INVENTION:  METHODS OF USE THEREOF
  FILE REFERENCE: 261/210
  CURRENT APPLICATION NUMBER: US/09/791,537
  CURRENT FILING DATE:  2001-02-22
  NUMBER OF SEQ ID NOS: 153055
  SOFTWARE: PatentIn version 3.0
 SEQ ID NO 46654
   LENGTH: 193
   TYPE: PRT
   ORGANISM: Rattus norvegicus
 Found using 'wax058' (wax058.key)
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US-09-791-537-75012 ; Sequence 75012, Application US/09791537
(from "/srch/paa/US097B_COMB.pep")
Sequence 75012, Application US/09791537
GENERAL INFORMATION:
APPLICANT: Bionomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBER
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: PatentIn version 3.0
SEQ ID NO 75012
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
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...

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1 match found in sequence:
US-09-791-537-86366 ; Sequence 86366, Application US/09791537
(from "/srch/paa/US097B_COMB.pep")
Sequence 86366, Application US/09791537
GENERAL INFORMATION:
APPLICANT: Bionomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBER
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: PatentIn version 3.0
SEQ ID NO 86366
LENGTH: 193
TYPE: PRT
ORGANISM: Mus musculus
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...

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1 match found in sequence:
US-09-791-537-111917 ; Sequence 111917, Application US/09791537
(from "/srch/paa/US097B_COMB.pep")
Sequence 111917, Application US/09791537
GENERAL INFORMATION:
APPLICANT: Bionomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERS
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: PatentIn version 3.0
SEQ ID NO 111917
LENGTH: 190
TYPE: PRT
ORGANISM: Gallus gallus
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1 match found in sequence:
US-09-806-637-2 ; Sequence 2, Application US/09806637
(from "/srch/paa/US098_COMB.pep")
Sequence 2, Application US/09806637
GENERAL INFORMATION:
APPLICANT: Bennett, C. Frank
APPLICANT: Dean, Nicholas M.
APPLICANT: Monia, Brett P.
APPLICANT: Nickoloff, Brian J.
APPLICANT: Zhang, QingQing
APPLICANT: Isis Pharmaceuticals, Inc.
TITLE OF INVENTION: Antisense Modulation of bcl-x Expression
FILE REFERENCE: ISPH-0410
CURRENT APPLICATION NUMBER: US/09/806,637
CURRENT FILING DATE: 2001-04-03
PRIOR APPLICATION NUMBER: 09/323,743
PRIOR FILING DATE: 1999-06-02
PRIOR APPLICATION NUMBER: 09/277,020
PRIOR FILING DATE: 1999-03-26
PRIOR APPLICATION NUMBER: 09/167,921
PRIOR FILING DATE: 1998-10-07
NUMBER OF SEQ ID NOS: 66
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
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US-09-809-391-696 ; Sequence 696, Application US/09809391
(from "/srch/paa/US098_COMB.pep")
Sequence 696, Application US/09809391
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: 186 Human Secreted proteins
FILE REFERENCE: PZ002P2

CURRENT APPLICATION NUMBER: US/09/809,391
CURRENT FILING DATE: 2001-03-16
Prior application data removed - consult PALM or file wrapper
NUMBER OF SEQ ID NOS: 761
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 696
LENGTH: 365
TYPE: PRT
ORGANISM: Homo sapiens
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1 match found in sequence:
US-09-864-761-40954 ; Sequence 40954, Application US/09864761
(from "/srch/paa/US098_COMB.pep")
Sequence 40954, Application US/09864761
GENERAL INFORMATION:
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
FILE REFERENCE: Aeomica-X-1
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 2000-10-04
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30
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PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00669
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00665
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00668
PRIOR FILING DATE: 2001-01-30
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PRIOR FILING DATE: 2001-01-30
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PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00670
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 40954
LENGTH: 185
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AL117381.9
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.99
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 3.5
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.6
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 4.7
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.7
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.4
OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
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1 match found in sequence:
US-09-882-171-696 ; Sequence 696, Application US/09882171
(from "/srch/paa/US098_COMB.pep")
Sequence 696, Application US/09882171
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: 186 Human Secreted proteins
FILE REFERENCE: PZ002P2
CURRENT APPLICATION NUMBER: US/09/882,171
CURRENT FILING DATE: 2001-06-18
PRIOR APPLICATION NUMBER: 09/809,391
PRIOR FILING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: 09/149,476
PRIOR FILING DATE: 1998-09-08
PRIOR APPLICATION NUMBER: PCT/US98/04493
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: 60/040,162
PRIOR FILING DATE: 1997-03-07
PRIOR APPLICATION NUMBER: 60/040,333
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PRIOR FILING DATE: 1997-03-07
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PRIOR FILING DATE: 1997-08-22

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 PRIOR APPLICATION NUMBER: 60/048,964
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 PRIOR APPLICATION NUMBER: 60/049,610
 PRIOR FILING DATE: 1997-06-13
 PRIOR APPLICATION NUMBER: 60/061,060
 PRIOR FILING DATE: 1997-10-02
 PRIOR APPLICATION NUMBER: 60/051,926
 PRIOR FILING DATE: 1997-07-08
 PRIOR APPLICATION NUMBER: 60/052,874
 PRIOR FILING DATE: 1997-07-16
 PRIOR APPLICATION NUMBER: 60/058,785
 PRIOR FILING DATE: 1997-09-12
 PRIOR APPLICATION NUMBER: 60/055,724
 PRIOR FILING DATE: 1997-08-18
 PRIOR APPLICATION NUMBER: 60/040,161
 PRIOR FILING DATE: 1997-03-07
 NUMBER OF SEQ ID NOS: 761
 SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 696
  LENGTH: 365
  TYPE: PRT
  ORGANISM: Homo sapiens
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1 match found in sequence:
 US-09-925-674A-7 ; Sequence 7, Application US/09925674A
  (from "/srch/paa/US099A_COMB.pep")
 Sequence 7, Application US/09925674A
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-w, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 11686a
  CURRENT APPLICATION NUMBER: US/09/925,674A
  CURRENT FILING DATE:  2001-08-09
  PRIOR APPLICATION NUMBER: 09/925,674
  PRIOR FILING DATE: 2001-08-09
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
  NUMBER OF SEQ ID NOS: 9
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 7
   LENGTH: 193
   TYPE: PRT
   ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

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 US-09-925-674A-9 ; Sequence 9, Application US/09925674A
  (from "/srch/paa/US099A_COMB.pep")
 Sequence 9, Application US/09925674A
 GENERAL INFORMATION:
  APPLICANT: AMRAD Operations Pty Ltd
  TITLE OF INVENTION: A NOVEL MAMMALIAN GENE, bcl-w, BELONGS TO THE bcl-2
  TITLE OF INVENTION:  FAMILY OF APOPTOSIS-CONTROLLING GENES
  FILE REFERENCE: 11686a
  CURRENT APPLICATION NUMBER: US/09/925,674A
  CURRENT FILING DATE:  2001-08-09
  PRIOR APPLICATION NUMBER: 09/925,674
  PRIOR FILING DATE: 2001-08-09
  PRIOR APPLICATION NUMBER: PN8965
  PRIOR FILING DATE: 1996-03-27
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 Found using 'wax058' (wax058.key)

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 US-09-949-016-10416 ; Sequence 10416, Application US/09949016
  (from "/srch/paa/US099A_COMB.pep")
 Sequence 10416, Application US/09949016
 GENERAL INFORMATION:
  APPLICANT: VENTER, J. Craig et al.
  TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
  TITLE OF INVENTION:  WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
  FILE REFERENCE: CL001307
  CURRENT APPLICATION NUMBER: US/09/949,016
  CURRENT FILING DATE:  2000-04-14
  PRIOR APPLICATION NUMBER: 60/241,755
  PRIOR FILING DATE: 2000-10-20
  PRIOR APPLICATION NUMBER: 60/237,768
  PRIOR FILING DATE: 2000-10-03
  PRIOR APPLICATION NUMBER: 60/231,498
  PRIOR FILING DATE: 2000-09-08
  NUMBER OF SEQ ID NOS: 207012
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 10416
   LENGTH: 186
   TYPE: PRT
   ORGANISM: Human
 Found using 'wax058' (wax058.key)

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 US-09-949-016-10928 ; Sequence 10928, Application US/09949016
  (from "/srch/paa/US099A_COMB.pep")
 Sequence 10928, Application US/09949016
 GENERAL INFORMATION:
  APPLICANT: VENTER, J. Craig et al.
  TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
  TITLE OF INVENTION:  WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
  FILE REFERENCE: CL001307
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CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 10928
LENGTH: 193
TYPE: PRT
ORGANISM: Human
Found using 'wax058' (wax058.key)

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43 HQAMRAAGDEFETRFRRTFSDLAAQLHVT
53 61

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1 match found in sequence:
US-09-950-084-6927 ; Sequence 6927, Application US/09950084
(from "/srch/paa/US099B_COMB.pep")
Sequence 6927, Application US/09950084
GENERAL INFORMATION:
APPLICANT: George H. Shimer,Jr.
APPLICANT: George H. Miller
APPLICANT: Roberta S. Hare
APPLICANT: Karen J. Shaw
TITLE OF INVENTION: Staphylococcus aureus Related Compositions and Methods
FILE REFERENCE: 1034/1C963US2
CURRENT APPLICATION NUMBER: US/09/950,084
CURRENT FILING DATE: 2001-09-10
PRIOR APPLICATION NUMBER: US 09/417,811
PRIOR FILING DATE: 1999-10-14
PRIOR APPLICATION NUMBER: US 09/353,718
PRIOR FILING DATE: 1999-07-14
PRIOR APPLICATION NUMBER: US 09/266,557
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,556
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,555
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,542
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/266,541
PRIOR FILING DATE: 1999-03-11
PRIOR APPLICATION NUMBER: US 09/037,934
PRIOR FILING DATE: 1998-03-10
PRIOR APPLICATION NUMBER: US 09/036,720
PRIOR FILING DATE: 1998-03-06
PRIOR APPLICATION NUMBER: US 09/036,338
PRIOR FILING DATE: 1998-03-06
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 7451
SEQ ID NO 6927
LENGTH: 178
TYPE: PRT
ORGANISM: Staphylococcus aureus
Found using 'wax058' (wax058.key)

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1 QSLGERGIYIYSIKYKKIFIFNILVLIIG
11 19

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1 match found in sequence:
US-09-952-278-2 ; Sequence 2, Application US/09952278
(from "/srch/paa/US099B_COMB.pep")
Sequence 2, Application US/09952278
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B.
Boise, Lawrence H.
TITLE OF INVENTION: Vertebrate Apoptosis Gene:
Compositions and Methods
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: 321 North Clark Street, Suite 800
CITY: Chicago
STATE: IL
COUNTRY: USA
ZIP: 60610
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/952,278
FILING DATE: 12-Sep-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/081,448
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Northrup, Thomas E.
REGISTRATION NUMBER: 33,268
REFERENCE/DOCKET NUMBER: ARCD090
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-744-0090
TELEFAX: 312-755-4489
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 190 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
Found using 'wax058' (wax058.key)

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83 RQALRDAGDEFELRYRRAFSDLTSQLHIT
93 101

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1 match found in sequence:
US-09-952-278-6 ; Sequence 6, Application US/09952278
(from "/srch/paa/US099B_COMB.pep")
Sequence 6, Application US/09952278
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B.
Boise, Lawrence H.
TITLE OF INVENTION: Vertebrate Apoptosis Gene:
Compositions and Methods
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: 321 North Clark Street, Suite 800
CITY: Chicago
STATE: IL
COUNTRY: USA
ZIP: 60610
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

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            COMPUTER: IBM PC compatible
            OPERATING SYSTEM: PC-DOS/MS-DOS
            SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
            APPLICATION NUMBER: US/09/952,278
            FILING DATE: 12-Sep-2001
            CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
            APPLICATION NUMBER: US/08/081,448
            FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
            NAME: Northrup, Thomas E.
            REGISTRATION NUMBER: 33,268
            REFERENCE/DOCKET NUMBER: ARCD090
         TELECOMMUNICATION INFORMATION:
            TELEPHONE: 312-744-0090
            TELEFAX: 312-755-4489
      INFORMATION FOR SEQ ID NO: 6:
         SEQUENCE CHARACTERISTICS:
            LENGTH: 233 amino acids
            TYPE: amino acid
            TOPOLOGY: linear
         MOLECULE TYPE: protein
         SEQUENCE DESCRIPTION: SEQ ID NO: 6:
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                   97      105

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1 match found in sequence:
 US-09-952-278-8 ; Sequence 8, Application US/09952278
   (from "/srch/paa/US099B_COMB.pep")
 Sequence 8, Application US/09952278
    GENERAL INFORMATION:
         APPLICANT: Thompson, Craig B.
                    Boise, Lawrence H.
         TITLE OF INVENTION: Vertebrate Apoptosis Gene:
                             Compositions and Methods
         NUMBER OF SEQUENCES: 8
         CORRESPONDENCE ADDRESS:
            ADDRESSEE: Arnold, White & Durkee
            STREET: 321 North Clark Street, Suite 800
            CITY: Chicago
            STATE: IL
            COUNTRY: USA
            ZIP: 60610
         COMPUTER READABLE FORM:
            MEDIUM TYPE: Floppy disk
            COMPUTER: IBM PC compatible
            OPERATING SYSTEM: PC-DOS/MS-DOS
            SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
            APPLICATION NUMBER: US/09/952,278
            FILING DATE: 12-Sep-2001
            CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
            APPLICATION NUMBER: US/08/081,448
            FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
            NAME: Northrup, Thomas E.
            REGISTRATION NUMBER: 33,268
            REFERENCE/DOCKET NUMBER: ARCD090
         TELECOMMUNICATION INFORMATION:
            TELEPHONE: 312-744-0090
            TELEFAX: 312-755-4489
      INFORMATION FOR SEQ ID NO: 8:
         SEQUENCE CHARACTERISTICS:
            LENGTH: 170 amino acids
            TYPE: amino acid
            TOPOLOGY: linear
         MOLECULE TYPE: protein
         SEQUENCE DESCRIPTION: SEQ ID NO: 8:
 Found using 'wax058' (wax058.key)

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87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                   97      105

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1 match found in sequence:
 US-09-952-278A-2 ; Sequence 2, Application US/09952278A
   (from "/srch/paa/US099B_COMB.pep")
 Sequence 2, Application US/09952278A
 GENERAL INFORMATION:
  APPLICANT: THOMPSON, CRAIG B.
  APPLICANT:  BOISE, LAWRENCE H.
  TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE:  COMPOSITIONS AND METHODS
  FILE REFERENCE: ARCD:090USD3
  CURRENT APPLICATION NUMBER: US/09/952,278A
  CURRENT FILING DATE:  2001-09-12
  PRIOR APPLICATION NUMBER: 08/081,448
  PRIOR FILING DATE: 1993-06-22
  NUMBER OF SEQ ID NOS: 18
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 2
    LENGTH: 190
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence:  Synthetic
    OTHER INFORMATION: Peptide
 Found using 'wax058' (wax058.key)

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83       RQALRDAGDEFELRYRRAFSDLTSQLHIT
                   93      101

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1 match found in sequence:
 US-09-952-278A-7 ; Sequence 7, Application US/09952278A
   (from "/srch/paa/US099B_COMB.pep")
 Sequence 7, Application US/09952278A
 GENERAL INFORMATION:
  APPLICANT: THOMPSON, CRAIG B.
  APPLICANT:  BOISE, LAWRENCE H.
  TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE:  COMPOSITIONS AND METHODS
  FILE REFERENCE: ARCD:090USD3
  CURRENT APPLICATION NUMBER: US/09/952,278A
  CURRENT FILING DATE:  2001-09-12
  PRIOR APPLICATION NUMBER: 08/081,448
  PRIOR FILING DATE: 1993-06-22
  NUMBER OF SEQ ID NOS: 18
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 7
    LENGTH: 233
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence:  Synthetic
    OTHER INFORMATION: Primer
 Found using 'wax058' (wax058.key)
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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105
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1 match found in sequence:
US-09-952-278A-9 ; Sequence 9, Application US/09952278A
(from "/srch/paa/US099B_COMB.pep")
Sequence 9, Application US/09952278A
GENERAL INFORMATION:
APPLICANT: THOMPSON, CRAIG B.
APPLICANT: BOISE, LAWRENCE H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS AND METHODS
FILE REFERENCE: ARCD:090USD3
CURRENT APPLICATION NUMBER: US/09/952,278A
CURRENT FILING DATE: 2001-09-12
PRIOR APPLICATION NUMBER: 08/081,448
PRIOR FILING DATE: 1993-06-22
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 9
LENGTH: 170
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Primer
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105
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1 match found in sequence:
US-09-952-278A-11 ; Sequence 11, Application US/09952278A
(from "/srch/paa/US099B_COMB.pep")
Sequence 11, Application US/09952278A
GENERAL INFORMATION:
APPLICANT: THOMPSON, CRAIG B.
APPLICANT: BOISE, LAWRENCE H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS AND METHODS
FILE REFERENCE: ARCD:090USD3
CURRENT APPLICATION NUMBER: US/09/952,278A
CURRENT FILING DATE: 2001-09-12
PRIOR APPLICATION NUMBER: 08/081,448
PRIOR FILING DATE: 1993-06-22
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 11
LENGTH: 109
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Peptide
Found using 'wax058' (wax058.key)

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2       RQALRDAGDEFELRYRRAFSDLTSQLHIT
                12      20 .
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1 match found in sequence:
US-09-952-278A-15 ; Sequence 15, Application US/09952278A
(from "/srch/paa/US099B_COMB.pep")
Sequence 15, Application US/09952278A
GENERAL INFORMATION:
APPLICANT: THOMPSON, CRAIG B.
APPLICANT: BOISE, LAWRENCE H.
TITLE OF INVENTION: VERTEBRATE APOPTOSIS GENE: COMPOSITIONS AND METHODS
FILE REFERENCE: ARCD:090USD3
CURRENT APPLICATION NUMBER: US/09/952,278A
CURRENT FILING DATE: 2001-09-12
PRIOR APPLICATION NUMBER: 08/081,448
PRIOR FILING DATE: 1993-06-22
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 15
LENGTH: 121
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Peptide
Found using 'wax058' (wax058.key)

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83      KQALREAGDEFELRYRRAFSDLTSQLHIT
                93      101
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1 match found in sequence:
US-09-958-215-4 ; Sequence 4, Application US/09958215
(from "/srch/paa/US099B_COMB.pep")
Sequence 4, Application US/09958215
GENERAL INFORMATION:
APPLICANT: JAPAN SCIENCE AND TECHNOLOGY CORPORATION
TITLE OF INVENTION: Processes for screening apoptotic inhibitor or
TITLE OF INVENTION: activator
FILE REFERENCE: A081-01PCT
CURRENT APPLICATION NUMBER: US/09/958,215
CURRENT FILING DATE: 2001-10-05
PRIOR APPLICATION NUMBER: JP P1999-101888
PRIOR FILING DATE: 1999-04-08
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105
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1 match found in sequence:
US-09-978-825-26726 ; Sequence 26726, Application US/09978825
(from "/srch/paa/US099B_COMB.pep")
Sequence 26726, Application US/09978825
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David

APPLICANT: Bhatia, Ajay
APPLICANT: Maisonneuve, Jean Francois
APPLICANT: Zhang, Yanni
APPLICANT: Wang, Siqing
APPLICANT: Jen, Shyian
APPLICANT: Lodes, Michael
APPLICANT: Benson, Darin
APPLICANT: Jones, Robert
APPLICANT: Carter, Darrick
APPLICANT: Barth, Brenda
APPLICANT: Douglass,John
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes Vu
FILE REFERENCE: 210121.514C1
CURRENT APPLICATION NUMBER: US/09/978,825
CURRENT FILING DATE: 2003-01-29
NUMBER OF SEQ ID NOS: 30992
SEQ ID NO 26726
LENGTH: 771
TYPE: PRT
ORGANISM: Propioni acnes
FEATURE:
NAME/KEY: unsure
LOCATION: (621)
OTHER INFORMATION: Xaa = Any Amino Acid
FEATURE:
NAME/KEY: unsure
LOCATION: (625)
OTHER INFORMATION: Xaa = Any Amino Acid
Found using 'wax058' (wax058.key)

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411 KLPKSELPNVFEDKYKRLFSYRRLTAKKA
421 429

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1 match found in sequence:
US-09-978-825-30196 ; Sequence 30196, Application US/09978825
(from "/srch/paa/US099B_COMB.pep")
Sequence 30196, Application US/09978825
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David
APPLICANT: Bhatia, Ajay
APPLICANT: Maisonneuve, Jean Francois
APPLICANT: Zhang, Yanni
APPLICANT: Wang, Siqing
APPLICANT: Jen, Shyian
APPLICANT: Lodes, Michael
APPLICANT: Benson, Darin
APPLICANT: Jones, Robert
APPLICANT: Carter, Darrick
APPLICANT: Barth, Brenda
APPLICANT: Douglass,John
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes Vu
FILE REFERENCE: 210121.514C1
CURRENT APPLICATION NUMBER: US/09/978,825
CURRENT FILING DATE: 2003-01-29
NUMBER OF SEQ ID NOS: 30992
SEQ ID NO 30196
LENGTH: 1480
TYPE: PRT
ORGANISM: Propionibacterium acnes
Found using 'wax058' (wax058.key)

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660 KLPKSELPNVFEDKYKRLFSYRRLTAKKA
670 678

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1 match found in sequence:
US-10-003-632C-7 ; Sequence 7, Application US/10003632C
(from "/srch/paa/US100_COMB.pep")
Sequence 7, Application US/10003632C
GENERAL INFORMATION:
APPLICANT: Lee, Chichang; Ly, Celia; Moore, Gordon; Chi, Xiamei
TITLE OF INVENTION: Methods and Compositions for Enhanced Protein Expression and/or Gro
TITLE OF INVENTION: Cultured Cells Using Co-Transcription of a Bcl2 Encoding Nucleic A
FILE REFERENCE: CEN0269
CURRENT APPLICATION NUMBER: US/10/003,632C
CURRENT FILING DATE: 2001-11-02
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn Ver 3.1
SEQ ID NO 7
LENGTH: 170
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-10-049-822A-2 ; Sequence 2, Application US/10049822A
(from "/srch/paa/US100_COMB.pep")
Sequence 2, Application US/10049822A
GENERAL INFORMATION:
APPLICANT: OHTA, Shigeo
APPLICANT: ASOH, Sadamitsu
TITLE OF INVENTION: A GENETICALLY ENGINEERED cDNA OF RAT bcl-x GENE AND AN IMPROVED PRO
FILE REFERENCE: 2002-0256A/LC/00653
CURRENT APPLICATION NUMBER: US/10/049,822A
CURRENT FILING DATE: 2002-04-01
PRIOR APPLICATION NUMBER: PCT/JP00/05502
PRIOR FILING DATE: 2000-08-17
PRIOR APPLICATION NUMBER: JP11-230642
PRIOR FILING DATE: 1999-08-17
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
LENGTH: 233
TYPE: PRT
ORGANISM: Rattus norvegicus
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-10-049-822A-3 ; Sequence 3, Application US/10049822A
(from "/srch/paa/US100_COMB.pep")
Sequence 3, Application US/10049822A
GENERAL INFORMATION:
APPLICANT: OHTA, Shigeo
APPLICANT: ASOH, Sadamitsu
TITLE OF INVENTION: A GENETICALLY ENGINEERED cDNA OF RAT bcl-x GENE AND AN IMPROVED PRO

FILE REFERENCE: 2002-0256A/LC/00653
CURRENT APPLICATION NUMBER: US/10/049,822A
CURRENT FILING DATE: 2002-04-01
PRIOR APPLICATION NUMBER: PCT/JP00/05502
PRIOR FILING DATE: 2000-08-17
PRIOR APPLICATION NUMBER: JP11-230642
PRIOR FILING DATE: 1999-08-17
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 3
LENGTH: 233
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Artificial Sequence: Modified Protein of SEQ ID NO: 2
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-10-057-498-26726 ; Sequence 26726, Application US/10057498
(from "/srch/paa/US100_COMB.pep")
Sequence 26726, Application US/10057498
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes Vu
FILE REFERENCE: 210121.514
CURRENT APPLICATION NUMBER: US/10/057,498
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 29212
SEQ ID NO 26726
LENGTH: 771
TYPE: PRT
ORGANISM: Propioni acnes
FEATURE:
NAME/KEY: unsure
LOCATION: (621)
OTHER INFORMATION: Xaa = Any Amino Acid
FEATURE:
NAME/KEY: unsure
LOCATION: (625)
OTHER INFORMATION: Xaa = Any Amino Acid
Found using 'wax058' (wax058.key)

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411 KLPKSELPNVFEDKYKRLFSYRRLTAKKA
421 429

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1 match found in sequence:
US-10-071-174-29 ; Sequence 29, Application US/10071174
(from "/srch/paa/US100_COMB.pep")
Sequence 29, Application US/10071174
GENERAL INFORMATION:
APPLICANT: REED, JOHN C.
APPLICANT: KE, NING
APPLICANT: GODZIK, ADAM
TITLE OF INVENTION: APOPTOSIS MODULATOR BCL-B AND METHODS FOR MAKING AND
TITLE OF INVENTION: USING SAME
FILE REFERENCE: 087102-0272558
CURRENT APPLICATION NUMBER: US/10/071,174
CURRENT FILING DATE: 2002-02-07
PRIOR APPLICATION NUMBER: 60/267,166
PRIOR FILING DATE: 2001-02-07
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 29
LENGTH: 25
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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5 KQALREAGDEFELRYRRAFSD
15 23

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1 match found in sequence:
US-10-072-830-4 ; Sequence 4, Application US/10072830
(from "/srch/paa/US100_COMB.pep")
Sequence 4, Application US/10072830
GENERAL INFORMATION:
APPLICANT: CHEN, DONG FENG
APPLICANT: HUANG, XIZHONG
APPLICANT: CHEN, GUANG
APPLICANT: MANJI, HUSSEINI K.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR STIMULATING AXON
TITLE OF INVENTION: REGENERATION AND PREVENTING NEURONAL CELL DEGENERATION
FILE REFERENCE: ERM-105.01
CURRENT APPLICATION NUMBER: US/10/072,830
CURRENT FILING DATE: 2002-02-08
PRIOR APPLICATION NUMBER: 60/267,832
PRIOR FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/272,617
PRIOR FILING DATE: 2001-03-01
PRIOR APPLICATION NUMBER: 60/289,990
PRIOR FILING DATE: 2001-05-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-10-101-482-14 ; Sequence 14, Application US/10101482
(from "/srch/paa/US101_COMB.pep")
Sequence 14, Application US/10101482
GENERAL INFORMATION:
APPLICANT: KIEFER, MICHAEL C.
BARR, PHILIP J.
TITLE OF INVENTION: NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
ENCODING THE PROTEINS AND METHODS OF USE THEREOF
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/101,482
FILING DATE: 18-Mar-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/320,157
FILING DATE: 07-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23647-20007.20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
TELEFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 233 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 14:
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-10-116-275-171 ; Sequence 171, Application US/10116275
(from "/srch/paa/US101_COMB.pep")
Sequence 171, Application US/10116275
GENERAL INFORMATION:
APPLICANT: Elan Pharmaceutical Technology
APPLICANT: O'Mahony, Daniel J.
APPLICANT: Brayden, David
APPLICANT: Byrne, Daragh
APPLICANT: Lambkin, Imelda
APPLICANT: Higgins, Lisa
TITLE OF INVENTION: Genetic Analysis of Peyer's Patches and M Cells and Methods and
TITLE OF INVENTION: Compositions Targeting Peyer's Patches and M Cell Receptors
FILE REFERENCE: E1067/20087
CURRENT APPLICATION NUMBER: US/10/116,275
CURRENT FILING DATE: 2002-10-04
NUMBER OF SEQ ID NOS: 349
SOFTWARE: PatentIn version 3.1
SEQ ID NO 171
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87 KQALREAGDEFELRYRRAFSDLTSQLHIT
97 105

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1 match found in sequence:
US-10-158-769-2 ; Sequence 2, Application US/10158769
(from "/srch/paa/US101_COMB.pep")
Sequence 2, Application US/10158769
GENERAL INFORMATION:
APPLICANT: Weng, Shaomeng
APPLICANT: Yang, Dajun
TITLE OF INVENTION: Small Molecule Antagonists of BCL-2 Family Protein
FILE REFERENCE: UM-07232
CURRENT APPLICATION NUMBER: US/10/158,769
CURRENT FILING DATE: 2002-09-09
PRIOR APPLICATION NUMBER: 60/293,983
PRIOR FILING DATE: 2001-05-30
NUMBER OF SEQ ID NOS: 3
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
LENGTH: 152
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic
Found using 'wax058' (wax058.key)

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43 KQALREAGDEFELRYRRAFSDLTSQLHIT
53 61

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1 match found in sequence:
US-10-164-861-696 ; Sequence 696, Application US/10164861
(from "/srch/paa/US101_COMB.pep")
Sequence 696, Application US/10164861
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: 186 Human Secreted proteins
FILE REFERENCE: PZ002P1
CURRENT APPLICATION NUMBER: US/10/164,861
CURRENT FILING DATE: 2002-06-10
PRIOR APPLICATION NUMBER: US/09/149,476
PRIOR FILING DATE: 1998-09-08
PRIOR APPLICATION NUMBER: PCT/US98/04493
PRIOR FILING DATE: 1998-03-06
NUMBER OF SEQ ID NOS: 757
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 696
LENGTH: 365
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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43 HQAMRAAGDEFETRFRRTFSDLAAQLHVT
53 61

...

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1 match found in sequence:
US-10-165-910B-4 ; Sequence 4, Application US/10165910B
(from "/srch/paa/US101_COMB.pep")
Sequence 4, Application US/10165910B
GENERAL INFORMATION:
APPLICANT: Wyeth
TITLE OF INVENTION: PABLO, A POLYPEPTIDE THAT INTERACTS WITH BCL-XL AND USES RELATED TH
FILE REFERENCE: AM100012-P1
CURRENT APPLICATION NUMBER: US/10/165,910B
CURRENT FILING DATE: 2002-06-10
NUMBER OF SEQ ID NOS: 11
SOFTWARE: PatentIn version 3.1

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SEQ ID NO 4
  LENGTH: 212
  TYPE: PRT
  ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105

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1 match found in sequence:
 US-10-169-223-10 ; Sequence 10, Application US/10169223
  (from "/srch/paa/US101_COMB.pep")
 Sequence 10, Application US/10169223
 GENERAL INFORMATION:
  APPLICANT: SHIMIZU, Shigeomi
  APPLICANT:  TSUJIMOTO, Yoshihide
  TITLE OF INVENTION: BH4-Fused Polypeptides
  FILE REFERENCE: 1422-0537P
  CURRENT APPLICATION NUMBER: US/10/169,223
  CURRENT FILING DATE:  2002-11-05
  PRIOR APPLICATION NUMBER: JP 11-371449
  PRIOR FILING DATE: 1999-12-27
  PRIOR APPLICATION NUMBER: PCT/JP00/09274
  PRIOR FILING DATE: 2000-12-26
  NUMBER OF SEQ ID NOS: 35
  SOFTWARE: PatentIn version 3.1
 SEQ ID NO 10
   LENGTH: 233
   TYPE: PRT
   ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105

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1 match found in sequence:
 US-10-169-223-14 ; Sequence 14, Application US/10169223
  (from "/srch/paa/US101_COMB.pep")
 Sequence 14, Application US/10169223
 GENERAL INFORMATION:
  APPLICANT: SHIMIZU, Shigeomi
  APPLICANT:  TSUJIMOTO, Yoshihide
  TITLE OF INVENTION: BH4-Fused Polypeptides
  FILE REFERENCE: 1422-0537P
  CURRENT APPLICATION NUMBER: US/10/169,223
  CURRENT FILING DATE:  2002-11-05
  PRIOR APPLICATION NUMBER: JP 11-371449
  PRIOR FILING DATE: 1999-12-27
  PRIOR APPLICATION NUMBER: PCT/JP00/09274
  PRIOR FILING DATE: 2000-12-26
  NUMBER OF SEQ ID NOS: 35
  SOFTWARE: PatentIn version 3.1
 SEQ ID NO 14
   LENGTH: 212
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: CDS of Synthesized DNA for mutant bcl-xL
Found using 'wax058' (wax058.key)

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66      KQALREAGDEFELRYRRAFSDLTSQLHIT
                76      84

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1 match found in sequence:
 US-10-182-993-35031 ; Sequence 35031, Application US/10182993
  (from "/srch/paa/US101_COMB.pep")
 Sequence 35031, Application US/10182993
 GENERAL INFORMATION:
  APPLICANT: Molecular Dynamics, Inc.
  APPLICANT:  Penn, Sharron G.
  APPLICANT:  Rank, David R.
  APPLICANT:  Hanzel, David K.
  APPLICANT:  Chen, Wensheng
  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
  TITLE OF INVENTION:  ANALYSIS OF GENE EXPRESSION IN HUMAN BRAIN
  FILE REFERENCE: PB 0004 WO 2
  CURRENT APPLICATION NUMBER: US/10/182,993
  CURRENT FILING DATE:  2002-08-02
  PRIOR APPLICATION NUMBER: US 60/180,312
  PRIOR FILING DATE: 04 February 2000 (04.02.00)
  PRIOR APPLICATION NUMBER: US 60/207,456
  PRIOR FILING DATE: 26 May 2000 (26.05.00)
  PRIOR APPLICATION NUMBER: US 09/632,366
  PRIOR FILING DATE: 03 August 2000 (03.08.00)
  PRIOR APPLICATION NUMBER: GB 24263.6
  PRIOR FILING DATE: 03 October 2000 (03.10.00)
  PRIOR APPLICATION NUMBER: US 60/236,359
  PRIOR FILING DATE: 27 September 2000 (27.09.00)
  PRIOR APPLICATION NUMBER: US 60/234,687
  PRIOR FILING DATE: 21 September 2000 (21.09.00)
  PRIOR APPLICATION NUMBER: US 09/608,408
  PRIOR FILING DATE: 30 June 2000 (30.06.00)
  NUMBER OF SEQ ID NOS: 37811
  SOFTWARE: Molecular Dynamics Sequence Listing Engine
 SEQ ID NO 35031
   LENGTH: 185
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: MAP TO AL117381.9
   FEATURE:
   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.6
   FEATURE:
   OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
   FEATURE:
   OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
 Found using 'wax058' (wax058.key)

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84      KQALREAGDEFELRYRRAFSDLTSQLHIT
                94      102

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1 match found in sequence:
 US-10-182-995-27426 ; Sequence 27426, Application US/10182995
  (from "/srch/paa/US101_COMB.pep")
 Sequence 27426, Application US/10182995
 GENERAL INFORMATION:
  APPLICANT: Molecular Dynamics, Inc.
  APPLICANT:  Penn, Sharron G.
  APPLICANT:  Rank, David R.
  APPLICANT:  Hanzel, David K.
  APPLICANT:  Chen, Wensheng
  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
```

TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN HUMAN HEART
FILE REFERENCE: PB 0004 WO 1
CURRENT APPLICATION NUMBER: US/10/182,995
CURRENT FILING DATE: 2002-08-02
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 04 February 2000 (04.02.00)
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 26 May 2000 (26.05.00)
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 03 August 2000 (03.08.00)
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 03 October 2000 (03.10.00)
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 27 September 2000 (27.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 21 September 2000 (21.09.00)
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 30 June 2000 (30.06.00)
NUMBER OF SEQ ID NOS: 29119
SOFTWARE: Molecular Dynamics Sequence Listing Engine
SEQ ID NO 27426
LENGTH: 185
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AL117381.9
FEATURE:
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.4
FEATURE:
OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
FEATURE:
OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
Found using 'wax058' (wax058.key)

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                |-------|
84      KQALREAGDEFELRYRRAFSDLTSQLHIT
                94      102
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1 match found in sequence:
US-10-203-134-36044 ; Sequence 36044, Application US/10203134
(from "/srch/paa/US102_COMB.pep")
Sequence 36044, Application US/10203134
GENERAL INFORMATION:
APPLICANT: Molecular Dynamics, Inc.
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN HUMAN BONE MARROW
FILE REFERENCE: PB 0004 WO 6
CURRENT APPLICATION NUMBER: US/10/203,134
CURRENT FILING DATE: 2002-08-02
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 04 February 2000 (04.02.00)
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 26 May 2000 (26.05.00)
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 03 August 2000 (03.08.00)
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 03 October 2000 (03.10.00)
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 27 September 2000 (27.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 21 September 2000 (21.09.00)
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 30 June 2000 (30.06.00)
NUMBER OF SEQ ID NOS: 38628
SOFTWARE: Molecular Dynamics Sequence Listing Engine
SEQ ID NO 36044
LENGTH: 185
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AL117381.9
FEATURE:
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 4.7
FEATURE:
OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
FEATURE:
OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
Found using 'wax058' (wax058.key)

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84      KQALREAGDEFELRYRRAFSDLTSQLHIT
                94      102
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1 match found in sequence:
US-10-203-135-34885 ; Sequence 34885, Application US/10203135
(from "/srch/paa/US102_COMB.pep")
Sequence 34885, Application US/10203135
GENERAL INFORMATION:
APPLICANT: Molecular Dynamics, Inc.
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN HUMAN LUNG
FILE REFERENCE: PB 0004 WO 5
CURRENT APPLICATION NUMBER: US/10/203,135
CURRENT FILING DATE: 2002-08-02
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 04 February 2000 (04.02.00)
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 26 May 2000 (26.05.00)
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 03 August 2000 (03.08.00)
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 03 October 2000 (03.10.00)
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 27 September 2000 (27.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 21 September 2000 (21.09.00)
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 30 June 2000 (30.06.00)
NUMBER OF SEQ ID NOS: 37012
SOFTWARE: Molecular Dynamics Sequence Listing Engine
SEQ ID NO 34885
LENGTH: 185
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AL117381.9
FEATURE:
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
FEATURE:
OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
FEATURE:
OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
Found using 'wax058' (wax058.key)

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84      KQALREAGDEFELRYRRAFSDLTSQLHIT
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                94      102

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1 match found in sequence:
 US-10-203-136-36124 ; Sequence 36124, Application US/10203136
  (from "/srch/paa/US102_COMB.pep")
 Sequence 36124, Application US/10203136
 GENERAL INFORMATION:
  APPLICANT: Molecular Dynamics, Inc.
  APPLICANT:  Penn, Sharron G.
  APPLICANT:  Rank, David R.
  APPLICANT:  Hanzel, David K.
  APPLICANT:  Chen, Wensheng
  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
  TITLE OF INVENTION:  ANALYSIS OF GENE EXPRESSION IN HUMAN ADULT LIVER
  FILE REFERENCE: PB 0004 WO 3
  CURRENT APPLICATION NUMBER: US/10/203,136
  CURRENT FILING DATE:  2002-08-02
  PRIOR APPLICATION NUMBER: US 60/180,312
  PRIOR FILING DATE: 04 February 2000 (04.02.00)
  PRIOR APPLICATION NUMBER: US 60/207,456
  PRIOR FILING DATE: 26 May 2000 (26.05.00)
  PRIOR APPLICATION NUMBER: US 09/632,366
  PRIOR FILING DATE: 03 August 2000 (03.08.00)
  PRIOR APPLICATION NUMBER: GB 24263.6
  PRIOR FILING DATE: 03 October 2000 (03.10.00)
  PRIOR APPLICATION NUMBER: US 60/236,359
  PRIOR FILING DATE: 27 September 2000 (27.09.00)
  PRIOR APPLICATION NUMBER: US 60/234,687
  PRIOR FILING DATE: 21 September 2000 (21.09.00)
  PRIOR APPLICATION NUMBER: US 09/608,408
  PRIOR FILING DATE: 30 June 2000 (30.06.00)
  NUMBER OF SEQ ID NOS: 38578
  SOFTWARE: Molecular Dynamics Sequence Listing Engine
 SEQ ID NO 36124
   LENGTH: 185
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: MAP TO AL117381.9
   FEATURE:
   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.7
   FEATURE:
   OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
   FEATURE:
   OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
 Found using 'wax058' (wax058.key)

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84      KQALREAGDEFELRYRRAFSDLTSQLHIT
                94      102

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1 match found in sequence:
 US-10-203-137-36116 ; Sequence 36116, Application US/10203137
  (from "/srch/paa/US102_COMB.pep")
 Sequence 36116, Application US/10203137
 GENERAL INFORMATION:
  APPLICANT: Molecular Dynamics, Inc.
  APPLICANT:  Penn, Sharron G.
  APPLICANT:  Rank, David R.
  APPLICANT:  Hanzel, David K.
  APPLICANT:  Chen, Wensheng
  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
  TITLE OF INVENTION:  ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA
  FILE REFERENCE: PB 0004 WO 7
  CURRENT APPLICATION NUMBER: US/10/203,137
  CURRENT FILING DATE:  2002-08-02
  PRIOR APPLICATION NUMBER: US 60/180,312
  PRIOR FILING DATE: 04 February 2000 (04.02.00)
  PRIOR APPLICATION NUMBER: US 60/207,456
  PRIOR FILING DATE: 26 May 2000 (26.05.00)
  PRIOR APPLICATION NUMBER: US 09/632,366
  PRIOR FILING DATE: 03 August 2000 (03.08.00)
  PRIOR APPLICATION NUMBER: GB 24263.6
  PRIOR FILING DATE: 03 October 2000 (03.10.00)
  PRIOR APPLICATION NUMBER: US 60/236,359
  PRIOR FILING DATE: 27 September 2000 (27.09.00)
  PRIOR APPLICATION NUMBER: US 60/234,687
  PRIOR FILING DATE: 21 September 2000 (21.09.00)
  PRIOR APPLICATION NUMBER: US 09/608,408
  PRIOR FILING DATE: 30 June 2000 (30.06.00)
  NUMBER OF SEQ ID NOS: 38837
  SOFTWARE: Molecular Dynamics Sequence Listing Engine
 SEQ ID NO 36116
   LENGTH: 185
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: MAP TO AL117381.9
   FEATURE:
   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.99
   FEATURE:
   OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
   FEATURE:
   OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
 Found using 'wax058' (wax058.key)

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84      KQALREAGDEFELRYRRAFSDLTSQLHIT
                94      102

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1 match found in sequence:
 US-10-203-139-34680 ; Sequence 34680, Application US/10203139
  (from "/srch/paa/US102_COMB.pep")
 Sequence 34680, Application US/10203139
 GENERAL INFORMATION:
  APPLICANT: Molecular Dynamics, Inc.
  APPLICANT:  Penn, Sharron G.
  APPLICANT:  Rank, David R.
  APPLICANT:  Hanzel, David K.
  APPLICANT:  Chen, Wensheng
  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
  TITLE OF INVENTION:  ANALYSIS OF GENE EXPRESSION IN HUMAN FETAL LIVER
  FILE REFERENCE: PB 0004 WO 4
  CURRENT APPLICATION NUMBER: US/10/203,139
  CURRENT FILING DATE:  2002-08-02
  PRIOR APPLICATION NUMBER: US 60/180,312
  PRIOR FILING DATE: 04 February 2000 (04.02.00)
  PRIOR APPLICATION NUMBER: US 60/207,456
  PRIOR FILING DATE: 26 May 2000 (26.05.00)
  PRIOR APPLICATION NUMBER: US 09/632,366
  PRIOR FILING DATE: 03 August 2000 (03.08.00)
  PRIOR APPLICATION NUMBER: GB 24263.6
  PRIOR FILING DATE: 03 October 2000 (03.10.00)
  PRIOR APPLICATION NUMBER: US 60/236,359
  PRIOR FILING DATE: 27 September 2000 (27.09.00)
  PRIOR APPLICATION NUMBER: US 60/234,687
  PRIOR FILING DATE: 21 September 2000 (21.09.00)
  PRIOR APPLICATION NUMBER: US 09/608,408
  PRIOR FILING DATE: 30 June 2000 (30.06.00)
  NUMBER OF SEQ ID NOS: 37156
  SOFTWARE: Molecular Dynamics Sequence Listing Engine
 SEQ ID NO 34680
   LENGTH: 185
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  TYPE: PRT
  ORGANISM: Homo sapiens
  FEATURE:
  OTHER INFORMATION: MAP TO AL117381.9
  FEATURE:
  OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 3.5
  FEATURE:
  OTHER INFORMATION: EST_HUMAN HIT: BE207063.1, EVALUE 9.00e-98
  FEATURE:
  OTHER INFORMATION: SWISSPROT HIT: Q07817, EVALUE 1.00e-106
Found using 'wax058' (wax058.key)

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84      KQALREAGDEFELRYRRAFSDLTSQLHIT
                94      102

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1 match found in sequence:
 US-10-208-155-2 ; Sequence 2, Application US/10208155
  (from "/srch/paa/US102_COMB.pep")
 Sequence 2, Application US/10208155
   GENERAL INFORMATION:
        APPLICANT: Yang et al.
        TITLE OF INVENTION: BCL-X{SYMBOL 103  \f "Symbol"}, A NOVEL BCL-X
                            ISOFORM, AND USES RELATED THERETO
        NUMBER OF SEQUENCES: 23
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: LAHIVE & COCKFIELD
             STREET: 60 State Street
             CITY: Boston
             STATE: Massachusetts
             COUNTRY: USA
             ZIP: 02109-1875
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/208,155
             FILING DATE: 29-Jul-2002
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/899,367
             FILING DATE: <Unknown>
        ATTORNEY/AGENT INFORMATION:
             NAME: Amy E. Mandragouras
             REGISTRATION NUMBER: 36,207
             REFERENCE/DOCKET NUMBER: DFN-019
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (617)227-7400
             TELEFAX: (617)227-5941
    INFORMATION FOR SEQ ID NO: 2:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 235 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: protein
        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
 Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105

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1 match found in sequence:
 US-10-216-436-847 ; Sequence 847, Application US/10216436
  (from "/srch/paa/US102_COMB.pep")
 Sequence 847, Application US/10216436
 GENERAL INFORMATION:
  APPLICANT: Rosen et al.
  TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
  FILE REFERENCE: PJZ17C1N
  CURRENT APPLICATION NUMBER: US/10/216,436
  CURRENT FILING DATE:  2002-08-12
  PRIOR APPLICATION NUMBER: 09/760,485
  PRIOR FILING DATE: 2001-01-16
  PRIOR APPLICATION NUMBER: 60/179,065
  PRIOR FILING DATE: 2000-01-31
  PRIOR APPLICATION NUMBER: 60/180,628
  PRIOR FILING DATE: 2000-02-04
  PRIOR APPLICATION NUMBER: 60/214,886
  PRIOR FILING DATE: 2000-06-28
  PRIOR APPLICATION NUMBER: 60/217,487
  PRIOR FILING DATE: 2000-07-11
  PRIOR APPLICATION NUMBER: 60/225,758
  PRIOR FILING DATE: 2000-08-14
  PRIOR APPLICATION NUMBER: 60/220,963
  PRIOR FILING DATE: 2000-07-26
  PRIOR APPLICATION NUMBER: 60/217,496
  PRIOR FILING DATE: 2000-07-11
  PRIOR APPLICATION NUMBER: 60/225,447
  PRIOR FILING DATE: 2000-08-14
  PRIOR APPLICATION NUMBER: 60/218,290
  PRIOR FILING DATE: 2000-07-14
  Remaining Prior Application data removed - See File Wrapper or PALM.
  NUMBER OF SEQ ID NOS: 1477
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 847
   LENGTH: 249
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121

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1 match found in sequence:
 US-10-219-051B-8420 ; Sequence 8420, Application US/10219051B
  (from "/srch/paa/US102_COMB.pep")
 Sequence 8420, Application US/10219051B
 GENERAL INFORMATION:
  APPLICANT: The General Hospital Corporation doing business as Massachusetts General
  APPLICANT:  Hospital / Bayer AG
  TITLE OF INVENTION: Nucleotide sequences involved in pain
  FILE REFERENCE: LeA 35693 Foreign Countries
  CURRENT APPLICATION NUMBER: US/10/219,051B
  CURRENT FILING DATE:  2003-05-09
  PRIOR APPLICATION NUMBER: US 60/312,147
  PRIOR FILING DATE: 2001-08-14
  PRIOR APPLICATION NUMBER: US 60/346,382
  PRIOR FILING DATE: 2001-11-01
  PRIOR APPLICATION NUMBER: US 60/333,347
  PRIOR FILING DATE: 2001-11-26
  NUMBER OF SEQ ID NOS: 14715
  SOFTWARE: Perl script
 SEQ ID NO 8420
   LENGTH: 233
   TYPE: PRT
   ORGANISM: Rattus norvegicus
  PUBLICATION INFORMATION:
   DATABASE ACCESSION NUMBER: SWISS-Prot / P53563
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DATABASE ENTRY DATE: 2002-06-15
Found using 'wax058' (wax058.key)

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87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                  97      105
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1 match found in sequence:
US-10-219-051B-8422 ; Sequence 8422, Application US/10219051B
(from "/srch/paa/US102_COMB.pep")
Sequence 8422, Application US/10219051B
GENERAL INFORMATION:
APPLICANT: The General Hospital Corporation doing business as Massachusetts General
APPLICANT: Hospital / Bayer AG
TITLE OF INVENTION: Nucleotide sequences involved in pain
FILE REFERENCE: LeA 35693 Foreign Countries
CURRENT APPLICATION NUMBER: US/10/219,051B
CURRENT FILING DATE: 2003-05-09
PRIOR APPLICATION NUMBER: US 60/312,147
PRIOR FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: US 60/346,382
PRIOR FILING DATE: 2001-11-01
PRIOR APPLICATION NUMBER: US 60/333,347
PRIOR FILING DATE: 2001-11-26
NUMBER OF SEQ ID NOS: 14715
SOFTWARE: Perl script
SEQ ID NO 8422
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: SWISS-Prot / Q07817
DATABASE ENTRY DATE: 2002-06-15
Found using 'wax058' (wax058.key)

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                  |-------|
87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                  97      105
```

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1 match found in sequence:
US-10-219-051B-8855 ; Sequence 8855, Application US/10219051B
(from "/srch/paa/US102_COMB.pep")
Sequence 8855, Application US/10219051B
GENERAL INFORMATION:
APPLICANT: The General Hospital Corporation doing business as Massachusetts General
APPLICANT: Hospital / Bayer AG
TITLE OF INVENTION: Nucleotide sequences involved in pain
FILE REFERENCE: LeA 35693 Foreign Countries
CURRENT APPLICATION NUMBER: US/10/219,051B
CURRENT FILING DATE: 2003-05-09
PRIOR APPLICATION NUMBER: US 60/312,147
PRIOR FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: US 60/346,382
PRIOR FILING DATE: 2001-11-01
PRIOR APPLICATION NUMBER: US 60/333,347
PRIOR FILING DATE: 2001-11-26
NUMBER OF SEQ ID NOS: 14715
SOFTWARE: Perl script
SEQ ID NO 8855
LENGTH: 233
TYPE: PRT
ORGANISM: Rattus norvegicus
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: SWISS-Prot / P53563
DATABASE ENTRY DATE: 2002-06-15
Found using 'wax058' (wax058.key)

...

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                  |-------|
87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                  97      105
```

...

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1 match found in sequence:
US-10-219-051B-12427 ; Sequence 12427, Application US/10219051B
(from "/srch/paa/US102_COMB.pep")
Sequence 12427, Application US/10219051B
GENERAL INFORMATION:
APPLICANT: The General Hospital Corporation doing business as Massachusetts General
APPLICANT: Hospital / Bayer AG
TITLE OF INVENTION: Nucleotide sequences involved in pain
FILE REFERENCE: LeA 35693 Foreign Countries
CURRENT APPLICATION NUMBER: US/10/219,051B
CURRENT FILING DATE: 2003-05-09
PRIOR APPLICATION NUMBER: US 60/312,147
PRIOR FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: US 60/346,382
PRIOR FILING DATE: 2001-11-01
PRIOR APPLICATION NUMBER: US 60/333,347
PRIOR FILING DATE: 2001-11-26
NUMBER OF SEQ ID NOS: 14715
SOFTWARE: Perl script
SEQ ID NO 12427
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: SWISS-Prot / Q92843
DATABASE ENTRY DATE: 2002-06-15
Found using 'wax058' (wax058.key)

...

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                  |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                  53      61
```

...

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1 match found in sequence:
US-10-221-279-11850 ; Sequence 11850, Application US/10221279
(from "/srch/paa/US102_COMB.pep")
Sequence 11850, Application US/10221279
GENERAL INFORMATION:
APPLICANT: Hyseq, Inc
TITLE OF INVENTION: Novel Nucleic Acids and Polypeptides
FILE REFERENCE: 21272-046
CURRENT APPLICATION NUMBER: US/10/221,279
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: 09/574,454
PRIOR FILING DATE: 2000-05-19
PRIOR APPLICATION NUMBER: 09/519,705
PRIOR FILING DATE: 2000-03-07
NUMBER OF SEQ ID NOS: 12360
SOFTWARE: Custom
SEQ ID NO 11850
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

...

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                  |-------|
103      KQALREAGDEFELRYRRAFSDLTSQLRIT
                  113     121

...

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1 match found in sequence:
 US-10-222-887-20 ; Sequence 20, Application US/10222887
  (from "/srch/paa/US102_COMB.pep")
 Sequence 20, Application US/10222887
 GENERAL INFORMATION:
  APPLICANT: Rosen et al.
  TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
  FILE REFERENCE: PTZ41C1N
  CURRENT APPLICATION NUMBER: US/10/222,887
  CURRENT FILING DATE:  2002-08-19
  PRIOR APPLICATION NUMBER: 09/760,490
  PRIOR FILING DATE: 2001-01-16
  PRIOR APPLICATION NUMBER: 60/179,065
  PRIOR FILING DATE: 2000-01-31
  PRIOR APPLICATION NUMBER: 60/180,628
  PRIOR FILING DATE: 2000-02-04
  PRIOR APPLICATION NUMBER: 60/214,886
  PRIOR FILING DATE: 2000-06-28
  PRIOR APPLICATION NUMBER: 60/217,487
  PRIOR FILING DATE: 2000-07-11
  PRIOR APPLICATION NUMBER: 60/225,758
  PRIOR FILING DATE: 2000-08-14
  PRIOR APPLICATION NUMBER: 60/220,963
  PRIOR FILING DATE: 2000-07-26
  PRIOR APPLICATION NUMBER: 60/217,496
  PRIOR FILING DATE: 2000-07-11
  PRIOR APPLICATION NUMBER: 60/225,447
  PRIOR FILING DATE: 2000-08-14
  PRIOR APPLICATION NUMBER: 60/218,290
  PRIOR FILING DATE: 2000-07-14
  Remaining Prior Application data removed - See File Wrapper or PALM.
  NUMBER OF SEQ ID NOS: 29
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 20
   LENGTH: 249
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

...

                  |-------|
103      KQALREAGDEFELRYRRAFSDLTSQLHIT
                  113     121

...

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1 match found in sequence:
 US-10-302-262-2 ; Sequence 2, Application US/10302262
  (from "/srch/paa/US103_COMB.pep")
 Sequence 2, Application US/10302262
 GENERAL INFORMATION:
  APPLICANT: Bennett, C. Frank
  APPLICANT:  Dean, Nicholas M.
  APPLICANT:  Monia, Brett P.
  APPLICANT:  Nickoloff, Brian J.
  APPLICANT:  Zhang, QingQing
  TITLE OF INVENTION: Antisense Modulation of bcl-x Expression
  FILE REFERENCE: ISPH-0528
  CURRENT APPLICATION NUMBER: US/10/302,262
  CURRENT FILING DATE:  2002-11-21
  PRIOR APPLICATION NUMBER: US/09/734,846
  PRIOR FILING DATE: 2000-12-12
  PRIOR APPLICATION NUMBER: 09/277,020
  PRIOR FILING DATE: 1998-03-26
  PRIOR APPLICATION NUMBER: 09/167,921
  PRIOR FILING DATE: 1998-10-07
  PRIOR APPLICATION NUMBER: 09/323,743
  PRIOR FILING DATE: 1999-06-02
  NUMBER OF SEQ ID NOS: 74
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 2
   LENGTH: 233
   TYPE: PRT
   ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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                  |-------|
87       KQALREAGDEFELRYRRAFSDLTSQLHIT
                  97      105

...

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1 match found in sequence:
 US-10-314-942-24 ; Sequence 24, Application US/10314942
  (from "/srch/paa/US103_COMB.pep")
 Sequence 24, Application US/10314942
   GENERAL INFORMATION:
        APPLICANT: Ni et al.
        TITLE OF INVENTION: Human Proteins
        NUMBER OF SEQUENCES: 24
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Human Genome Sciences, Inc.
             STREET: 9410 Key West Avenue
             CITY: Rockville
             STATE: MD
             COUNTRY: USA
             ZIP: 20850
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC
                       compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/314,942
             FILING DATE: 10-Dec-2002
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/09/010,147
             FILING DATE: 12-Nov-2002
             APPLICATION NUMBER: US 60/034,205
             FILING DATE: 21-JAN-1997
             APPLICATION NUMBER: US 60/034,204
             FILING DATE: 21-JAN-1997
        ATTORNEY/AGENT INFORMATION:
             NAME: Jonathan L. Klein
             REGISTRATION NUMBER: 41,119
             REFERENCE/DOCKET NUMBER: PF353
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 301-309-8504
             TELEFAX: 301-309-8439
    INFORMATION FOR SEQ ID NO: 24:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 365 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: protein
        SEQUENCE DESCRIPTION: SEQ ID NO: 24:
 Found using 'wax058' (wax058.key)

...

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43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53       61

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1 match found in sequence:
 US-10-330-773-740 ; Sequence 740, Application US/10330773
  (from "/srch/paa/US103_COMB.pep")
 Sequence 740, Application US/10330773
 GENERAL INFORMATION:
  APPLICANT: David W. Morris
  APPLICANT:  Marc Malandro
  TITLE OF INVENTION: Novel Compositions and Methods in Cancer
  FILE REFERENCE: 529452001300
  CURRENT APPLICATION NUMBER: US/10/330,773
  CURRENT FILING DATE:  2002-12-27
  NUMBER OF SEQ ID NOS: 981
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 740
    LENGTH: 340
    TYPE: PRT
    ORGANISM: Mus musculus
 Found using 'wax058' (wax058.key)

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                  |-------|
179     KQALREAGDEFELRYRRAFSDLTSQLHIT
                189      197

...

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1 match found in sequence:
 US-10-330-773-743 ; Sequence 743, Application US/10330773
  (from "/srch/paa/US103_COMB.pep")
 Sequence 743, Application US/10330773
 GENERAL INFORMATION:
  APPLICANT: David W. Morris
  APPLICANT:  Marc Malandro
  TITLE OF INVENTION: Novel Compositions and Methods in Cancer
  FILE REFERENCE: 529452001300
  CURRENT APPLICATION NUMBER: US/10/330,773
  CURRENT FILING DATE:  2002-12-27
  NUMBER OF SEQ ID NOS: 981
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 743
    LENGTH: 247
    TYPE: PRT
    ORGANISM: Homo sapiens
 Found using 'wax058' (wax058.key)

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                  |-------|
101     KQALREAGDEFELRYRRAFSDLTSQLHIT
                111      119

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1 match found in sequence:
 US-10-402-017-4 ; Sequence 4, Application US/10402017
  (from "/srch/paa/US104_COMB.pep")
 Sequence 4, Application US/10402017
 GENERAL INFORMATION:
  APPLICANT: Barbara ENENKEL, Heiko MEENTS and Martin FUSSENEGGER
  TITLE OF INVENTION: Host cells having improved survival properties and methods to gene
  TITLE OF INVENTION:  such cells
  FILE REFERENCE: Case 1/1314
  CURRENT APPLICATION NUMBER: US/10/402,017
  CURRENT FILING DATE:  2003-03-28
  PRIOR APPLICATION NUMBER: US 60/369,307
  PRIOR APPLICATION NUMBER: April 2, 2002
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.1
 SEQ ID NO 4
    LENGTH: 233
    TYPE: PRT
    ORGANISM: Cricetulus griseus
 Found using 'wax058' (wax058.key)

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                  |-------|
87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97       105

...

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1 match found in sequence:
 US-10-402-017-6 ; Sequence 6, Application US/10402017
  (from "/srch/paa/US104_COMB.pep")
 Sequence 6, Application US/10402017
 GENERAL INFORMATION:
  APPLICANT: Barbara ENENKEL, Heiko MEENTS and Martin FUSSENEGGER
  TITLE OF INVENTION: Host cells having improved survival properties and methods to gene
  TITLE OF INVENTION:  such cells
  FILE REFERENCE: Case 1/1314
  CURRENT APPLICATION NUMBER: US/10/402,017
  CURRENT FILING DATE:  2003-03-28
  PRIOR APPLICATION NUMBER: US 60/369,307
  PRIOR APPLICATION NUMBER: April 2, 2002
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.1
 SEQ ID NO 6
    LENGTH: 179
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Deletion mutant of SEQ ID NO:4 (del26-83)
 Found using 'wax058' (wax058.key)

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                  |-------|
33      KQALREAGDEFELRYRRAFSDLTSQLHIT
                43       51

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1 match found in sequence:
 US-10-402-017-8 ; Sequence 8, Application US/10402017
  (from "/srch/paa/US104_COMB.pep")
 Sequence 8, Application US/10402017
 GENERAL INFORMATION:
  APPLICANT: Barbara ENENKEL, Heiko MEENTS and Martin FUSSENEGGER
  TITLE OF INVENTION: Host cells having improved survival properties and methods to gene
  TITLE OF INVENTION:  such cells
  FILE REFERENCE: Case 1/1314
  CURRENT APPLICATION NUMBER: US/10/402,017
  CURRENT FILING DATE:  2003-03-28
  PRIOR APPLICATION NUMBER: US 60/369,307
  PRIOR APPLICATION NUMBER: April 2, 2002
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.1
 SEQ ID NO 8
    LENGTH: 199
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Deletion mutant of SEQ ID NO:4 (del46-83)
 Found using 'wax058' (wax058.key)
```

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                |-------|
53      KQALREAGDEFELRYRRAFSDLTSQLHIT
                63      71
```

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1 match found in sequence:
US-10-402-017-10 ; Sequence 10, Application US/10402017
(from "/srch/paa/US104_COMB.pep")
Sequence 10, Application US/10402017
GENERAL INFORMATION:
APPLICANT: Barbara ENENKEL, Heiko MEENTS and Martin FUSSENEGGER
TITLE OF INVENTION: Host cells having improved survival properties and methods to gene
TITLE OF INVENTION: such cells
FILE REFERENCE: Case 1/1314
CURRENT APPLICATION NUMBER: US/10/402,017
CURRENT FILING DATE: 2003-03-28
PRIOR APPLICATION NUMBER: US 60/369,307
PRIOR APPLICATION NUMBER: April 2, 2002
NUMBER OF SEQ ID NOS: 25
SOFTWARE: PatentIn version 3.1
SEQ ID NO 10
LENGTH: 219
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Deletion mutant of SEQ ID NO:4 (del66-83)
Found using 'wax058' (wax058.key)

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                |-------|
73      KQALREAGDEFELRYRRAFSDLTSQLHIT
                83      91
```

...

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1 match found in sequence:
US-10-402-017-12 ; Sequence 12, Application US/10402017
(from "/srch/paa/US104_COMB.pep")
Sequence 12, Application US/10402017
GENERAL INFORMATION:
APPLICANT: Barbara ENENKEL, Heiko MEENTS and Martin FUSSENEGGER
TITLE OF INVENTION: Host cells having improved survival properties and methods to gene
TITLE OF INVENTION: such cells
FILE REFERENCE: Case 1/1314
CURRENT APPLICATION NUMBER: US/10/402,017
CURRENT FILING DATE: 2003-03-28
PRIOR APPLICATION NUMBER: US 60/369,307
PRIOR APPLICATION NUMBER: April 2, 2002
NUMBER OF SEQ ID NOS: 25
SOFTWARE: PatentIn version 3.1
SEQ ID NO 12
LENGTH: 219
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Deletion mutant of SEQ ID NO:4 (del26-83)
Found using 'wax058' (wax058.key)

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```
                |-------|
73      KQALREAGDEFELRYRRAFSDLTSQLHIT
                83      91
```

...

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1 match found in sequence:
US-10-450-366-5 ; Sequence 5, Application US/10450366
(from "/srch/paa/US104_COMB.pep")
Sequence 5, Application US/10450366
GENERAL INFORMATION:
APPLICANT: Tschopp, Jorg
APPLICANT: Hoffmann, Kay
TITLE OF INVENTION: DNA-Sequences, Which Code For An Apoptosis Signal Transduction Prot
FILE REFERENCE: 11436*3
CURRENT APPLICATION NUMBER: US/10/450,366
CURRENT FILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: PCT/EP01/14597
PRIOR FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: DE 100 61 766.2
PRIOR FILING DATE: 2000-12-12
PRIOR APPLICATION NUMBER: DE 101 00 280.7
PRIOR FILING DATE: 2001-01-04
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.1
SEQ ID NO 5
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: Human Bcl-XL
Found using 'wax058' (wax058.key)

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                |-------|
87      KQALREAGDEFELRYRRAFSDLTSQLHIT
                97      105
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1 match found in sequence:
US-10-450-366-6 ; Sequence 6, Application US/10450366
(from "/srch/paa/US104_COMB.pep")
Sequence 6, Application US/10450366
GENERAL INFORMATION:
APPLICANT: Tschopp, Jorg
APPLICANT: Hoffmann, Kay
TITLE OF INVENTION: DNA-Sequences, Which Code For An Apoptosis Signal Transduction Prot
FILE REFERENCE: 11436*3
CURRENT APPLICATION NUMBER: US/10/450,366
CURRENT FILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: PCT/EP01/14597
PRIOR FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: DE 100 61 766.2
PRIOR FILING DATE: 2000-12-12
PRIOR APPLICATION NUMBER: DE 101 00 280.7
PRIOR FILING DATE: 2001-01-04
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.1
SEQ ID NO 6
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: Human Bcl-W
Found using 'wax058' (wax058.key)

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                |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53      61
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1 match found in sequence:
 US-60-173-469-1604 ; Sequence 1604, Application US/60173469
  (from "/srch/paa/US60_COMB.pep")
 Sequence 1604, Application US/60173469
 GENERAL INFORMATION:
  APPLICANT: BONAZZI, VIVIEN
  TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
  TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTIENS AND
  TITLE OF INVENTION: USES THEREOF
  FILE REFERENCE: CL000185
  CURRENT APPLICATION NUMBER: US/60/173,469
  CURRENT FILING DATE: 1999-12-29
  NUMBER OF SEQ ID NOS: 2120
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 1604
    LENGTH: 101
    TYPE: PRT
    ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

            |-------|
1       GDEFETRFRRTFSDLAAQLHVT
           4       12

...

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1 match found in sequence:
 US-60-186-282-659 ; Sequence 659, Application US/60186282
  (from "/srch/paa/US60_COMB.pep")
 Sequence 659, Application US/60186282
 GENERAL INFORMATION:
  APPLICANT: Bonazzi, Vivien
  TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
  TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND
  TITLE OF INVENTION: USES THEREOF
  FILE REFERENCE: CL000301
  CURRENT APPLICATION NUMBER: US/60/186,282
  CURRENT FILING DATE: 2000-03-01
  NUMBER OF SEQ ID NOS: 896
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 659
    LENGTH: 102
    TYPE: PRT
    ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

            |-------|
1       LGDEFETRFRRTFSDLAAQLHVT
           5       13

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1 match found in sequence:
 US-60-186-656-1433 ; Sequence 1433, Application US/60186656
  (from "/srch/paa/US60_COMB.pep")
 Sequence 1433, Application US/60186656
 GENERAL INFORMATION:
  APPLICANT: Bonazzi, Vivien
  TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
  TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND
  TITLE OF INVENTION: USES THEREOF
  FILE REFERENCE: CL000320
  CURRENT APPLICATION NUMBER: US/60/186,656
  CURRENT FILING DATE: 2000-03-03
  NUMBER OF SEQ ID NOS: 1518
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 1433
    LENGTH: 135
    TYPE: PRT
    ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

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                |-------|
34      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                44      52

...

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1 match found in sequence:
 US-60-186-656-1434 ; Sequence 1434, Application US/60186656
  (from "/srch/paa/US60_COMB.pep")
 Sequence 1434, Application US/60186656
 GENERAL INFORMATION:
  APPLICANT: Bonazzi, Vivien
  TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
  TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND
  TITLE OF INVENTION: USES THEREOF
  FILE REFERENCE: CL000320
  CURRENT APPLICATION NUMBER: US/60/186,656
  CURRENT FILING DATE: 2000-03-03
  NUMBER OF SEQ ID NOS: 1518
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 1434
    LENGTH: 108
    TYPE: PRT
    ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

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                |-------|
5       HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                15      23

...

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1 match found in sequence:
 US-60-187-385-719 ; Sequence 719, Application US/60187385
  (from "/srch/paa/US60_COMB.pep")
 Sequence 719, Application US/60187385
 GENERAL INFORMATION:
  APPLICANT: Bonazzi, Vivien
  TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
  TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND
  TITLE OF INVENTION: USES THEREOF
  FILE REFERENCE: CL000334
  CURRENT APPLICATION NUMBER: US/60/187,385
  CURRENT FILING DATE: 2000-03-07
  NUMBER OF SEQ ID NOS: 922
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 719
    LENGTH: 144
    TYPE: PRT
    ORGANISM: HUMAN
 Found using 'wax058' (wax058.key)

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                |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53      61

...

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1 match found in sequence:
 US-60-187-387-1182 ; Sequence 1182, Application US/60187387
  (from "/srch/paa/US60_COMB.pep")
 Sequence 1182, Application US/60187387
 GENERAL INFORMATION:
```

APPLICANT: Bonazzi, Vivien
TITLE OF INVENTION: ISOLATED HUMAN DRUG TARGET PROTEINS,
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN DRUG TARGET PROTEINS,
TITLE OF INVENTION: AND USES THEREOF
FILE REFERENCE: CL000328
CURRENT APPLICATION NUMBER: US/60/187,387
CURRENT FILING DATE: 2000-03-07
NUMBER OF SEQ ID NOS: 1350
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1182
LENGTH: 144
TYPE: PRT
ORGANISM: HUMAN
Found using 'wax058' (wax058.key)

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                |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53      61
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1 match found in sequence:
US-60-443-566-3444 ; Sequence 3444, Application US/60443566
(from "/srch/paa/US60_COMB.pep")
Sequence 3444, Application US/60443566
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001447
CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3444
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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                |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53      61
```

...

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1 match found in sequence:
US-60-443-566-3527 ; Sequence 3527, Application US/60443566
(from "/srch/paa/US60_COMB.pep")
Sequence 3527, Application US/60443566
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001447
CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3527
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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                |-------|
103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121
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1 match found in sequence:
US-60-452-680-23210 ; Sequence 23210, Application US/60452680
(from "/srch/paa/US60_COMB.pep")
Sequence 23210, Application US/60452680
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: GRUPE, Andrew
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: ALZHEIMER'S DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001450
CURRENT APPLICATION NUMBER: US/60/452,680
CURRENT FILING DATE: 2003-03-07
NUMBER OF SEQ ID NOS: 116213
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 23210
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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```
                |-------|
103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121
```

...

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1 match found in sequence:
US-60-453-050-14476 ; Sequence 14476, Application US/60453050
(from "/srch/paa/US60_COMB.pep")
Sequence 14476, Application US/60453050
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: LUKE, May
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: STENOSIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001457
CURRENT APPLICATION NUMBER: US/60/453,050
CURRENT FILING DATE: 2003-03-10
NUMBER OF SEQ ID NOS: 82762
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14476
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

...

```
                |-------|
103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121
```

...

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1 match found in sequence:
US-60-453-135-14476 ; Sequence 14476, Application US/60453135
(from "/srch/paa/US60_COMB.pep")
Sequence 14476, Application US/60453135
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele

APPLICANT: IAKOUBOVA, Olga
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001456
CURRENT APPLICATION NUMBER: US/60/453,135
CURRENT FILING DATE: 2003-03-10
NUMBER OF SEQ ID NOS: 82762
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14476
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

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```
                |-------|
103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121
```

...

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1 match found in sequence:
US-60-455-444-7804 ; Sequence 7804, Application US/60455444
(from "/srch/paa/US60_COMB.pep")
Sequence 7804, Application US/60455444
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001455
CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7804
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

...

```
                |-------|
103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121
```

...

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1 match found in sequence:
US-60-455-444-8301 ; Sequence 8301, Application US/60455444
(from "/srch/paa/US60_COMB.pep")
Sequence 8301, Application US/60455444
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001455
CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8301
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

...

```
                |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53      61
```

...

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1 match found in sequence:
US-60-465-241-7804 ; Sequence 7804, Application US/60465241
(from "/srch/paa/US60_COMB.pep")
Sequence 7804, Application US/60465241
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001468
CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7804
LENGTH: 249
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

...

```
                |-------|
103     KQALREAGDEFELRYRRAFSDLTSQLHIT
                113     121
```

...

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1 match found in sequence:
US-60-465-241-8301 ; Sequence 8301, Application US/60465241
(from "/srch/paa/US60_COMB.pep")
Sequence 8301, Application US/60465241
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001468
CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8301
LENGTH: 193
TYPE: PRT
ORGANISM: Homo sapiens
Found using 'wax058' (wax058.key)

...

```
                |-------|
43      HQAMRAAGDEFETRFRRTFSDLAAQLHVT
                53      61
```

...

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1 match found in sequence:
US-60-466-412-14476 ; Sequence 14476, Application US/60466412
(from "/srch/paa/US60_COMB.pep")
Sequence 14476, Application US/60466412
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: IAKOUBOVA, Olga

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1 match found in sequence:
 R68884 ; Chicken lymphoid BCL-X.
  (from "A-GeneSeq 35.2")
 ID   R68884 standard; Protein; 190 AA.
 AC   R68884;
 DT   10-AUG-1995  (first entry)
 DE   Chicken lymphoid BCL-X.
 KW   Chicken; bird; fowl; BCL-X; apoptosis; cell death; cancer;
 KW   neurodegenerative disease; autoimmune disease; Parkinson's disease;
 KW   amylotrophic lateral sclerosis; multiple sclerosis; oncogene.
 OS   Gallus domesticus.
 PN   WO9500642-A.
 PD   05-JAN-1995.
 PF   22-JUN-1994; U07089.
 PR   22-JUN-1993; US-081448.
 PA   (ARCH-) ARCH DEV CORP.
 PA   (UNMI ) UNIV MICHIGAN.
 PI   Boise LH,  Nunez G,  Thompson CB;
 DR   WPI; 95-052079/07.
 DR   N-PSDB; Q81696.
 PT   New poly-nucleotide encoding new poly-peptide(s) that modify
 PT   apoptosis - and related vectors, recombinant cells and
 PT   antibodies, useful in assay and for control of cell death in e.g.
 PT   neuronal cells, lymphocytes and cancers
 PS   Claim 4; Page 87; 127pp; English.
 CC   This protein may be expressed recombinantly, particularly with pcmV
 CC   plasmids as vectors for expression in mammalian cell cultures.
 CC   The protein has particular application in cancer cells (failure of
 CC   programmed cell death (PCD)) or neurodegenerative and autoimmune diseases
 CC   (premature PCD), e.g. Parkinson's disease, amylotrophic lateral
 CC   sclerosis and multiple sclerosis.
 SQ   Sequence   190 AA;
 SQ   13 A; 14 R; 7  N; 12 D; 0  B; 2  C; 6  Q; 17 E; 0  Z; 13 G; 8  H;
 SQ   6  I; 15 L; 2  K; 4  M; 8  F; 6  P; 18 S; 10 T; 6  W; 4  Y; 19 V;
 Found using 'wax058' (wax058.key)

...

                  |-------|
83       rqalrdagdefelryrrafsdltsqlhit
                   93      101

...

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1 match found in sequence:
 R68887 ; Human thymus BCL-XL.
  (from "A-GeneSeq 35.2")
```

```
ID   R68887 standard; Protein; 233 AA.
AC   R68887;
DT   10-AUG-1995  (first entry)
DE   Human thymus BCL-XL.
KW   BCL-XL; apoptosis; cell death; cancer; neurodegenerative disease;
KW   autoimmune disease; Parkinson disease; amylotrophic lateral sclerosis;
KW   multiple sclerosis.
OS   Homo sapiens.
PN   WO9500642-A.
PD   05-JAN-1995.
PF   22-JUN-1994; U07089.
PR   22-JUN-1993; US-081448.
PA   (ARCH-) ARCH DEV CORP.
PA   (UNMI ) UNIV MICHIGAN.
PI   Boise LH,  Nunez G,  Thompson CB;
DR   WPI; 95-052079/07.
DR   N-PSDB; Q81698.
PT   New poly-nucleotide encoding new poly-peptide(s) that modify
PT   apoptosis - and related vectors, recombinant cells and
PT   antibodies, useful in assay and for control of cell death in e.g.
PT   neuronal cells, lymphocytes and cancers
PS   Claim 3; Page 94; 127pp; English.
CC   This protein may be expressed recombinantly, particularly with pcmV
CC   plasmids as vectors for expression in mammalian cell cultures.  The
CC   protein has particular application in cancer cells (failure of
CC   programmed cell death (PCD)) or neurodegenerative and autoimmune
CC   diseases (premature PCD), e.g. Parkinson's disease, amylotrophic
CC   lateral sclerosis and multiple sclerosis.
SQ   Sequence   233 AA;
SQ   21 A; 14 R; 12 N; 10 D; 0  B; 1  C; 10 Q; 21 E; 0  Z; 18 G; 4  H;
SQ   6  I; 19 L; 6  K; 6  M; 13 F; 7  P; 23 S; 11 T; 7  W; 6  Y; 18 V;
Found using 'wax058' (wax058.key)

...

                |-------|
87      kqalreagdefelryrrafsdltsqlhit
                97      105

...

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1 match found in sequence:
R68888 ; Human thymus BCL-XS.
  (from "A-GeneSeq 35.2")
ID   R68888 standard; Protein; 170 AA.
AC   R68888;
DT   10-AUG-1995  (first entry)
DE   Human thymus BCL-XS.
KW   BCL-XS; apoptosis; cell death; cancer; neurodegenerative disease;
KW   autoimmune disease; Parkinson disease; amylotrophic lateral sclerosis;
KW   multiple sclerosis.
OS   Homo sapiens.
PN   WO9500642-A.
PD   05-JAN-1995.
PF   22-JUN-1994; U07089.
PR   22-JUN-1993; US-081448.
PA   (ARCH-) ARCH DEV CORP.
PA   (UNMI ) UNIV MICHIGAN.
PI   Boise LH,  Nunez G,  Thompson CB;
DR   WPI; 95-052079/07.
DR   N-PSDB; Q81699.
PT   New poly-nucleotide encoding new poly-peptide(s) that modify
PT   apoptosis - and related vectors, recombinant cells and
PT   antibodies, useful in assay and for control of cell death in e.g.
PT   neuronal cells, lymphocytes and cancers
PS   Claim 3; Page 98; 127pp; English.
CC   This protein may be expressed recombinantly, particularly with pcmV
CC   plasmids as vectors for expression in mammalian cell cultures.  The
CC   protein has particular application in cancer cells (failure of
CC   programmed cell death (PCD)) or neurodegenerative and autoimmune
CC   diseases (premature PCD), e.g. Parkinson's disease, amylotrophic
CC   lateral sclerosis and multiple sclerosis.
SQ   Sequence   170 AA;
SQ   16 A; 11 R; 8  N; 7  D; 0  B; 0  C; 8  Q; 16 E; 0  Z; 12 G; 3  H;
SQ   3  I; 14 L; 5  K; 4  M; 9  F; 6  P; 20 S; 10 T; 3  W; 5  Y; 10 V;
Found using 'wax058' (wax058.key)

...

                |-------|
87      kqalreagdefelryrrafsdltsqlhit
                97      105

...

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1 match found in sequence:
W05821 ; Bcl-XL protein.
  (from "A-GeneSeq 35.2")
ID   W05821 standard; Protein; 233 AA.
AC   W05821;
DT   30-MAR-1997  (first entry)
DE   Bcl-XL protein.
KW   Human; bcl-XL; T-lymphocyte; cell death; BH1 domain; BH2 domain;
KW   Bcl-2 homology domain; gene therapy; HIV; AIDS; antisense;
KW   immune disorder; autoimmune disease; graft rejection;
KW   graft-versus-host disease; apoptosis; adoptive immunotherapy.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   domain          129..148
FT                   /note= "BH1 domain"
FT   domain          180..191
FT                   /note= "BH2 domain"
PN   WO9634956-A1.
PD   07-NOV-1996.
PF   02-MAY-1996; U06203.
PR   04-MAY-1995; US-435518.
PR   07-JUN-1995; US-481739.
PA   (ARCH-) ARCH DEV CORP.
PA   (USNA ) US SEC OF NAVY.
PI   June CH,  Thompson CB;
DR   WPI; 96-506159/50.
DR   N-PSDB; T40079.
PT   Inducing or preventing death of T cells by bcl-XL protein regulation
PT   - used to increase survival of HIV infected cells or to
PT   down:regulate immune responses in immune diseases
PS   Disclosure; Page 52-53; 76pp; English.
CC   This is the sequence of a human bcl-XL protein, which protects
CC   T-lymphocytes against cell death.  A splice variant form, bcl-XS,
CC   lacks a stretch of 63 amino acids, and is a dominant negative
CC   regulator of bcl-XL function.  The gene may be modified to
CC   facilitate interaction with costimulatory Bax protein and inhibit
CC   interaction with antagonistic Bad protein, by modification of the
CC   Bcl-2 homology domains BH1 and/or BH2.  The bcl-XL gene may be
CC   introduced into T-cells in vivo or ex vivo via gene transfer using
CC   a vector for HIV infection gene therapy, to augment intracellular
CC   bcl-XL protein levels and protect from cell death.  A corresponding
CC   antisense oligonucleotide or expression vector may be used in gene
CC   therapy of e.g. autoimmune disease, graft rejection or graft-
CC   versus-host disease, to induce cell death (e.g. apoptosis) and
CC   down-regulate the immune response in a T-lymphocyte population.
SQ   Sequence   233 AA;
SQ   21 A; 14 R; 12 N; 10 D; 0  B; 1  C; 10 Q; 21 E; 0  Z; 18 G; 4  H;
SQ   6  I; 19 L; 6  K; 6  M; 13 F; 7  P; 23 S; 11 T; 7  W; 6  Y; 18 V;
Found using 'wax058' (wax058.key)

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                |-------|
87      kqalreagdefelryrrafsdltsqlhit
                97      105

...

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1 match found in sequence:
 W31530 ; Human anti-apoptotic BCL-XL protein.
  (from "A-GeneSeq 35.2")
 ID   W31530 standard; Protein; 233 AA.
 AC   W31530;
 DT   19-FEB-1998  (first entry)
 DE   Human anti-apoptotic BCL-XL protein.
 KW   BCL-XL; anti-apoptotic protein; human; nuclear factor-kappa B;
 KW   NF-kappa B; inhibitor; organ transplant; tissue transplant;
 KW   inflammation; gene therapy; endothelial cell.
 OS   Homo sapiens.
 PN   WO9730083-A1.
 PD   21-AUG-1997.
 PF   13-FEB-1997; E00676.
 PR   19-APR-1996; US-634995.
 PR   14-FEB-1996; US-601515.
 PA   (NEWE-) NEW ENGLAND DEACONESS HOSPITAL.
 PA   (NOVS ) NOVARTIS AG.
 PI   Bach FH,  Ferran C;
 DR   WPI; 97-424975/39.
 PT   Recombinant endothelial cell containing DNA encoding anti-apoptotic
 PT   protein  - is less susceptible to inflammatory response and is
 PT   useful for generating tissues or organs for transplantation
 PS   Claim 6; Page 46; 75pp; English.
 CC   This protein sequence comprises human BCL-XL, a protein capable of
 CC   blocking or suppressing NF-kappa B (NF-kB) activation.  A claimed
 CC   method of genetically modifying a mammalian endothelial cell to
 CC   render it less susceptible to an inflammatory or other
 CC   immunological stimulus comprises inserting into the cell, DNA
 CC   encoding an anti-apoptotic protein able to inhibit NF-kB, and
 CC   expressing the cell such that NF-kB activation of the cell is
 CC   inhibited in the presence of the the cellular activating stimulus.
 CC   Suitable anti-apoptotic proteins include A20 (see W31528), BCL-2
 CC   (see W31529), BCL-XL and A1 (see W31531) and their deletion mutants
 CC   capable of inhibiting NF-kB, such as polypeptides comprising amino
 CC   acid residues 5-24, 86-100, 129-148 and 180-195 of BCL-XL.  Also
 CC   claimed are: (1) a mammalian endothelial cell modified by the above
 CC   method: and (2) a non-human transgenic or somatic recombinant
 CC   mammal comprising DNA encoding an anti-apoptotic protein of a
 CC   different species.  The method can be used to generate donor
 CC   endothelial cells or graftable tissues or organs for
 CC   transplantation into recipient species.
 SQ   Sequence   233 AA;
 SQ   21 A; 14 R; 12 N; 10 D; 0  B; 1  C; 10 Q; 21 E; 0  Z; 18 G; 4  H;
 SQ   6  I; 19 L; 6  K; 6  M; 13 F; 7  P; 23 S; 11 T; 7  W; 6  Y; 18 V;
 Found using 'wax058' (wax058.key)

...

                  |-------|
87      kqalreagdefelryrrafsdltsqlhit
                  97      105

...

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1 match found in sequence:
 W19396 ; "Deprenyl" (RTM)-induced protein 1.
  (from "A-GeneSeq 35.2")
 ID   W19396 standard; protein; 225 AA.
 AC   W19396;
 DT   05-MAR-1998  (first entry)
 DE   "Deprenyl" (RTM)-induced protein 1.
 KW   Deprenyl-induced protein; neuroactive drug; neural cell; apoptosis;
 KW   neurodegenerative disorder; oligodendrocyte; multiple sclerosis.
 OS   Rattus rattus.
 PN   WO9725421-A2.
 PD   17-JUL-1997.
 PF   21-DEC-1996; E05800.
 PR   12-JAN-1996; GB-000660.
 PA   (NOVS ) NOVARTIS AG.
 PI   Furst P,  Tatton WG,  Waldmeier P;
 DR   WPI; 97-384980/35.
 PT   New isolated "Deprenyl" (RTM)-induced protein - used to develop
 PT   products for use in the diagnosis and treatment of neural disorders,
 PT   especially by rescuing cells from apoptosis
 PS   Claim 2; Pages 25-26; 30pp; English.
 CC   The present sequence represents "Deprenyl" (RTM)-induced protein (DIP),
 CC   a novel protein in neural cells. This protein is induced by the
 CC   neuroactive drug "Deprenyl" (RTM). DIP 1 and compounds which modulate
 CC   its activity can be used for the diagnosis and treatment of neuro-
 CC   degenerative disorders, particularly apoptosis in neural cells. Such
 CC   apoptosis is associated with diseases such as Alzheimer's, Parkinson's
 CC   and Huntington's, as well as cerebellar degeneration and oligodendrocyte
 CC   death in multiple sclerosis.
 SQ   Sequence   225 AA;
 SQ   19 A; 15 R; 12 N; 9  D; 2  B; 1  C; 10 Q; 17 E; 0  Z; 17 G; 4  H;
 SQ   6  I; 19 L; 6  K; 5  M; 12 F; 6  P; 24 S; 10 T; 7  W; 6  Y; 18 V;
 Found using 'wax058' (wax058.key)

...

                  |-------|
79      kqalreagdefelryrrafsdltsqlhit
                  89      97

...

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1 match found in sequence:
 W36048 ; Mouse bcl-w protein.
  (from "A-GeneSeq 35.2")
 ID   W36048 standard; Protein; 168 AA.
 AC   W36048;
 DT   22-APR-1998  (first entry)
 DE   Mouse bcl-w protein.
 KW   Bcl-w; apoptosis; bcl-2; cell survival; treatment; therapy; cancer;
 KW   diagnosis; degenerative disease.
 OS   Mus sp.
 PN   WO9735971-A1.
 PD   02-OCT-1997.
 PF   27-MAR-1997; AU0199.
 PR   27-MAR-1996; AU-008965.
 PA   (AMRA-) AMRAD OPERATIONS PTY LTD.
 PI   Adams JM, Cory S, Gibson LM, Holmgreen SP;
 DR   WPI; 97-489635/45.
 DR   N-PSDB; T96578.
 PT   Nucleic acid encoding apoptosis related gene bcl-w - used to induce
 PT   or inhibit cell survival, e.g. for treatment of cancer and
 PT   degenerative diseases
 PS   Claim 6; Page 50-51; 86pp; English.
 CC   This sequence represents a novel protein, bcl-w, encoded by the mouse
 CC   bcl-2 gene family. This gene promotes cell survival, so its modulation
 CC   is useful in treatment of cancer or auto-immune diseases, degenerative
 CC   diseases (e.g. stroke, Alzheimer's disease, myocardial infarct, muscular
 CC   degeneration, hypoxia, ischaemia, human immunodeficiency virus infection
 CC   or in cell transplants. Up-regulation of the gene can also be used to
 CC   modify cell lines cultured in vivo, e.g. to develop new lines, to
 CC   facilitate isolation of hybridomas and to increase survival of primary
 CC   explants during genetic modification. It can be used to produce
 CC   recombinant Bcl-w for therapy, diagnosis, antibody production or
 CC   screening of potential modulators.
 SQ   Sequence   168 AA;
 SQ   23 A; 13 R; 3  N; 11 D; 0  B; 2  C; 9  Q; 10 E; 0  Z; 18 G; 3  H;
 SQ   2  I; 14 L; 2  K; 3  M; 10 F; 9  P; 7  S; 9  T; 5  W; 4  Y; 11 V;
 Found using 'wax058' (wax058.key)

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                  |-------|
43      hqamraagdefetrfrrtfsdlaaqlhvt
                  53      61

...

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1 match found in sequence:
 W36047 ; Human bcl-w protein.
  (from "A-GeneSeq 35.2")
 ID   W36047 standard; Protein; 193 AA.
 AC   W36047;
 DT   22-APR-1998  (first entry)
 DE   Human bcl-w protein.
 KW   Bcl-w; apoptosis; bcl-2; cell survival; treatment; therapy; cancer;
 KW   diagnosis; degenerative disease.
 OS   Homo sapiens.
 PN   WO9735971-A1.
 PD   02-OCT-1997.
 PF   27-MAR-1997; AU0199.
 PR   27-MAR-1996; AU-008965.
 PA   (AMRA-) AMRAD OPERATIONS PTY LTD.
 PI   Adams JM, Cory S, Gibson LM, Holmgreen SP;
 DR   WPI; 97-489635/45.
 DR   N-PSDB; T96577.
 PT   Nucleic acid encoding apoptosis related gene bcl-w - used to induce
 PT   or inhibit cell survival, e.g. for treatment of cancer and
 PT   degenerative diseases
 PS   Claim 6; Page 48; 86pp; English.
 CC   This sequence represents a novel human protein, bcl-w, encoded by the
 CC   bcl-2 gene family and extracted from an adult brain library. This gene
 CC   promotes cell survival, so its modulation is useful in treatment of
 CC   cancer or auto-immune diseases, degenerative diseases (e.g. stroke,
 CC   Alzheimer's disease, myocardial infarct, muscular degeneration, hypoxia,
 CC   ischaemia, human immunodeficiency virus infection or in cell transplants.
 CC   Up-regulation of the gene can also be used to modify cell lines cultured
 CC   in vivo, e.g. to develop new lines, to facilitate isolation of hybridomas
 CC   and to increase survival of primary explants during genetic modification.
 CC   It can be used to produce recombinant Bcl-w for therapy, diagnosis,
 CC   antibody production or screening of potential modulators.
 SQ   Sequence   193 AA;
 SQ   29 A; 13 R; 3  N; 8  D; 0  B; 2  C; 9  Q; 13 E; 0  Z; 21 G; 3  H;
 SQ   1  I; 18 L; 4  K; 4  M; 12 F; 8  P; 9  S; 11 T; 5  W; 4  Y; 16 V;
 Found using 'wax058' (wax058.key)

...

                  |-------|
43       hqamraagdefetrfrrtfsdlaaqlhvt
                  53      61

...

-------
1 match found in sequence:
 W48312 ; Mouse BCL-x gamma.
  (from "A-GeneSeq 35.2")
 ID   W48312 standard; Protein; 235 AA.
 AC   W48312;
 DT   20-JUL-1998  (first entry)
 DE   Mouse BCL-x gamma.
 KW   Bcl-x gamma; mouse; apoptosis; T cell receptor; immunodeficiency;
 KW   autoimmune disorder; graft-versus-host disease; diabetes mellitus;
 KW   arthritis; multiple sclerosis; myasthenia gravis; dermatitis;
 KW   systemic lupus erythematosus; autoimmune thyroiditis; allergy;
 KW   psoriasis; Sjogren's Syndrome; alopecia areata; Crohn's disease;
 KW   aphthous ulcer; iritis; conjunctivitis; keratoconjunctivitis;
 KW   ulcerative colitis; asthma; cutaneous lupus erythematosus;
 KW   scleroderma; vaginitis; proctitis; erythema nodosum leprosum;
 KW   leprosy; autoimmune uveitis; allergic encephalomyelitis;
 KW   acute necrotising haemorrhagic encephalopathy; anaemia;
 KW   idiopathic bilateral progressive sensorineural hearing loss;
 KW   thrombocytopenia; polychondritis; Wegener's granulomatosis;
 KW   chronic active hepatitis; Stevens-Johnson syndrome; sarcoidosis;
 KW   idiopathic sprue; lichen planus; Graves ophthalmopathy;
 KW   primary biliary cirrhosis; uveitis posterior; lung fibrosis;
 KW   reticular dysgenesis; agammaglobulinaemia, hypogammaglobulinaemia;
 KW   Wiskott-Aldrich syndrome; ataxia telangiectasia; DiGeorge syndrome;
 KW   Bloom syndrome; Fanconi anaemia; AIDS; therapy; diagnosis.
 OS   Mus musculus.
 FH   Key             Location/Qualifiers
 FT   Domain          185..235
 FT                   /note= "gamma domain"
 FT   Domain          185..217
 FT                   /note= "ankyrin domain"
 PN   WO9805777-A2.
 PD   12-FEB-1998.
 PF   25-JUL-1997; U12899.
 PR   02-AUG-1996; US-023666.
 PA   (DAND ) DANA FARBER CANCER INST INC.
 PI   Cantor H, Weber GF, Yang X;
 DR   WPI; 98-145613/13.
 DR   N-PSDB; V17638.
 PT   BCL-x gamma, a new isoform of the BCL-x family of proteins -
 PT   provides resistance to T cell receptor dependent apoptosis, used to
 PT   develop products for treating autoimmune disorders or
 PT   immunodeficiencies
 PS   Claim 8; Page 84; 123pp; English.
 CC   This amino acid sequence comprises mouse BCL-x gamma, a novel
 CC   isoform of the BCL-x family that has a novel C-terminal gamma
 CC   domain.  The sequence was deduced from an isolated cDNA clone
 CC   (see V17638) from a thymus cDNA library.  n ankyrin domain and which is
 CC   predominantly expressed in T-lymphocytes and which is associated
 CC   with resistance to apoptosis.  BCL-x gamma polypeptides can be
 CC   expressed in host cells and used to screen for modulator compounds.
 CC   BCL-x gamma activity can be down-modulated in order to ameliorate
 CC   an autoimmune disorder such as graft-versus-host disease, cases of
 CC   transplantation, and autoimmune diseases e.g. diabetes mellitus,
 CC   arthritis, multiple sclerosis, myasthenia gravis, systemic lupus
 CC   erythematosus, autoimmune thyroiditis, dermatitis, psoriasis,
 CC   Sjogren's syndrome, alopecia areata, allergic responses to
 CC   arthropod bite, Crohn's disease, aphthous ulcer, iritis,
 CC   conjunctivitis, keratoconjunctivitis, ulcerative colitis, asthma,
 CC   cutaneous lupus erythematosus, scleroderma, vaginitis, proctitis,
 CC   drug eruptions, leprosy reversal reactions, erythema nodosum leprosum,
 CC   autoimmune uveitis, allergic encephalomyelitis, acute necrotising
 CC   haemorrhagic encephalopathy, idiopathic bilateral progressive
 CC   sensorineural hearing loss, aplastic anaemia, pure red cell anaemia,
 CC   idiopathic thrombocytopenia, polychondritis, Wegener's granulomatosis,
 CC   chronic active hepatitis, Stevens-Johnson syndrome, idiopathic sprue,
 CC   lichen planus, Graves ophthalmopathy, sarcoidosis, primary biliary
 CC   cirrhosis, uveitis posterior, and interstitial lung fibrosis.
 CC   BCL-x gamma activity can be upmodulated, e.g. by gene therapy, to
 CC   ameliorate e.g. severe combined immunodeficiency, adenosine deaminase
 CC   deficiency, purine nucleoside phosphorylase deficiency, MHC class II
 CC   deficiency, reticular dysgenesis, X-linked agammaglobulinaemia,
 CC   X-linked hypogammaglobulinaemia, Ig deficiency with increased IgM,
 CC   Ig heavy chain-gene deletions, k-chain deficiency IgA deficiency,
 CC   selective deficiency of IgG subclass, common variable
 CC   immunodeficiency, transient hypogammaglobulinaemia of infancy,
 CC   Wiskott-Aldrich syndrome, ataxia telangiectasia, DiGeorge syndrome,
 CC   Bloom syndrome, Fanconi anaemia, and Down syndrome-related
 CC   immunodeficiency, as well as other syndromes associated with
 CC   immunodeficiency and immunodeficiencies resulting from other causes,
 CC   such as HIV disease and AIDS.  Additionally, it may be desirable to
 CC   upregulate BCL-x gamma activity to increase T cell survival in the
 CC   case of other disorders, e.g. cellular responses to tumours, or
 CC   pathogens.
 SQ   Sequence   235 AA;
 SQ   18 A; 14 R; 9  N; 10 D; 0  B; 2  C; 12 Q; 24 E; 0  Z; 18 G; 5  H;
 SQ   6  I; 19 L; 4  K; 4  M; 10 F; 12 P; 24 S; 10 T; 7  W; 5  Y; 22 V;
 Found using 'wax058' (wax058.key)

...

                  |-------|
87       kqalreagdefelryrrafsdltsqlhit
                  97      105

...

-------
1 match found in sequence:
```

```
W61392 ; Human bcl-y protein.
 (from "A-GeneSeq 35.2")
ID   W61392 standard; Protein; 193 AA.
AC   W61392;
DT   02-OCT-1998  (first entry)
DE   Human bcl-y protein.
KW   bcl-y; bcl-2; cell death pathway; apoptotic; apoptosis; human.
OS   Homo sapiens.
PN   US5789201-A.
PD   04-AUG-1998.
PF   11-FEB-1997; 798897.
PR   23-FEB-1996; US-012201.
PR   11-FEB-1997; US-798897.
PA   (COCE-) COCENSYS INC.
PI   Guastella J;
DR   WPI; 98-446079/38.
DR   N-PSDB; V28334.
PT   Nucleic acids encoding B-cell lymphoma-y protein - useful for
PT   producing recombinant protein for use in treating uncontrolled cell
PT   growth e.g. cancers
PS   Example; Column 17/18; 27pp; English.
CC   The mammalian bcl-y protein is a member of the bcl-2 family, components
CC   in the cell death pathway.  The bcl-2 family have both apoptotic activity
CC   and the apoptosis blocking activity.  bcl-y falls in the apoptosis
CC   activity category.  The recombinant protein may be used to prevent
CC   uncontrolled cell growth, either by its direct administration to
CC   recombinant genetic constructs to increase its expression in vivo.  Also,
CC   antisense constructs can be used in disorders where prevention of cell
CC   death is desired.
SQ   Sequence   193 AA;
SQ   29 A; 13 R; 3  N; 8  D; 0  B; 2  C; 9  Q; 14 E; 0  Z; 21 G; 3  H;
SQ   1  I; 17 L; 4  K; 4  M; 12 F; 8  P; 9  S; 11 T; 5  W; 4  Y; 16 V;
Found using 'wax058' (wax058.key)

...

                  |-------|
43      hqamraagdefetrfrrtfsdlaaqlhvt
                  53      61

...

-------
1 match found in sequence:
 W61391 ; Rat bcl-y protein.
  (from "A-GeneSeq 35.2")
 ID   W61391 standard; Protein; 193 AA.
 AC   W61391;
 DT   02-OCT-1998  (first entry)
 DE   Rat bcl-y protein.
 KW   bcl-y; bcl-2; cell death pathway; apoptotic; apoptosis; rat.
 OS   Rattus sp.
 PN   US5789201-A.
 PD   04-AUG-1998.
 PF   11-FEB-1997; 798897.
 PR   23-FEB-1996; US-012201.
 PR   11-FEB-1997; US-798897.
 PA   (COCE-) COCENSYS INC.
 PI   Guastella J;
 DR   WPI; 98-446079/38.
 DR   N-PSDB; V283333.
 PT   Nucleic acids encoding B-cell lymphoma-y protein - useful for
 PT   producing recombinant protein for use in treating uncontrolled cell
 PT   growth e.g. cancers
 PS   Example; Fig 3A; 27pp; English.
 CC   The mammalian bcl-y protein is a member of the bcl-2 family, components
 CC   in the cell death pathway.  The bcl-2 family have both apoptotic activity
 CC   and the apoptosis blocking activity.  bcl-y falls in the apoptosis
 CC   activity category.  The recombinant protein may be used to prevent
 CC   uncontrolled cell growth, either by its direct administration to
 CC   recombinant genetic constructs to increase its expression in vivo.  Also,
 CC   antisense constructs can be used in disorders where prevention of cell
 CC   death is desired.
 SQ   Sequence   193 AA;
 SQ   28 A; 13 R; 3  N; 9  D; 0  B; 2  C; 9  Q; 12 E; 0  Z; 21 G; 3  H;
 SQ   1  I; 17 L; 4  K; 4  M; 12 F; 8  P; 9  S; 13 T; 5  W; 4  Y; 16 V;
 Found using 'wax058' (wax058.key)

 ...

                   |-------|
 43      hqamraagdefetrfrrtfsdlaaqlhvt
                   53      61

 ...

 -------
 1 match found in sequence:
  W59884 ; Amino acid sequence of the cDNA clone Bcl-like (HAICH29).
   (from "A-GeneSeq 35.2")
  ID   W59884 standard; Protein; 365 AA.
  AC   W59884;
  DT   20-NOV-1998  (first entry)
  DE   Amino acid sequence of the cDNA clone Bcl-like (HAICH29).
  KW   Bcl-like (HAICH29); chronic inflammatory disease; allergic reaction;
  KW   immunological disorder; autoimmune disease; anti-infectious agent.
  OS   Homo sapiens.
  PN   WO9831800-A2.
  PD   23-JUL-1998.
  PF   21-JAN-1998; U00960.
  PR   21-JAN-1997; US-034205.
  PR   21-JAN-1997; US-034204.
  PA   (AUCK-) AUCKLAND UNISERVICES LTD.
  PA   (HUMA-) HUMAN GENOME SCI INC.
  PI   Feng P, Gentz RL, Krissansen GW, Ni J, Rosen CA,
  PI   Su JY;
  DR   WPI; 98-414099/35.
  DR   N-PSDB; V41925.
  PT   New isolated polynucleotides and encoded polypeptides - used to
  PT   develop products for treating e.g. inflammatory diseases,
  PT   infections, immunological disorders, autoimmune diseases, allergies
  PT   or tumours
  PS   Claim 1; Fig 12A-12D; 120pp; English.
  CC   This is the amino acid sequence of the cDNA clone Bcl-like (HAICH29),
  CC   used in the method of the invention.  The products of the clone can be
  CC   used for treating conditions associated with abnormal expression of
  CC   the polypeptides.  They can be used for e.g. treating chronic
  CC   inflammatory diseases, immunological disorders, autoimmune diseases,
  CC   inflammatory diseases, various allergies, and as anti-infectious agents.
  CC   The products can also be used for detection and diagnosis.
  SQ   Sequence   365 AA;
  SQ   39 A; 30 R; 11 N; 17 D; 0  B; 6  C; 13 Q; 33 E; 0  Z; 29 G; 6  H;
  SQ   13 I; 22 L; 13 K; 10 M; 17 F; 20 P; 30 S; 17 T; 5  W; 12 Y; 22 V;
  Found using 'wax058' (wax058.key)

  ...

                   |-------|
  43      hqamraagdefetrfrrtfsdlaaqlhvt
                   53      61

  ...

                        -- Search Statistics --

  Times:                    CPU                    Total Elapsed
                         00:37:18.06               00:37:39.00

  Number of sequences searched:                    6802626
  Number of sequence hits:                             196
  Number of separate matches:                          196
  Number of sequence hits saved:                         0
```

```
!!AA_SEQUENCE 1.0
ID   AAR68887 standard; protein; 233 AA.
XX
AC   AAR68887;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1995  (first entry)
XX
DE   Human thymus BCL-XL.
XX
KW   BCL-XL; apoptosis; cell death; cancer; neurodegenerative disease;
KW   autoimmune disease; Parkinson disease; amylotrophic lateral sclerosis;
KW   multiple sclerosis.
XX
OS   Homo sapiens.
XX
PN   WO9500642-A1.
XX
PD   05-JAN-1995.
XX
PF   22-JUN-1994;   94WO-US007089.
XX
PR   22-JUN-1993;   93US-00081448.
XX
PA   (ARCH-) ARCH DEV CORP.
PA   (UNMI ) UNIV MICHIGAN.
XX
PI   Thompson CB,  Boise LH,  Nunez G;
XX
DR   WPI; 1995-052079/07.
DR   N-PSDB; AAQ81698.
XX
PT   New poly-nucleotide encoding new poly-peptide(s) that modify apoptosis -
PT   and related vectors, recombinant cells and antibodies, useful in assay
PT   and for control of cell death in e.g. neuronal cells, lymphocytes and
PT   cancers.
XX
PS   Claim 3; Page 94; 127pp; English.
XX
CC   This protein may be expressed recombinantly, particularly with pcmV
CC   plasmids as vectors for expression in mammalian cell cultures. The
CC   protein has particular application in cancer cells (failure of programmed
CC   cell death (PCD)) or neurodegenerative and autoimmune diseases (premature
CC   PCD), e.g. Parkinson's disease, amylotrophic lateral sclerosis and
CC   multiple sclerosis. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 233 AA;

  AAR68887  Length: 233  May 13, 2004 16:42  Type: P  Check: 5418  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   AAR68884 standard; protein; 190 AA.
XX
AC   AAR68884;
XX
DT   16-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   10-AUG-1995  (first entry)
XX
DE   Chicken lymphoid BCL-X.
XX
KW   Chicken; bird; fowl; BCL-X; apoptosis; cell death; cancer;
KW   neurodegenerative disease; autoimmune disease; Parkinson's disease;
KW   amylotrophic lateral sclerosis; multiple sclerosis; oncogene.
XX
OS   Gallus gallus.
XX
PN   WO9500642-A1.
XX
PD   05-JAN-1995.
XX
PF   22-JUN-1994;   94WO-US007089.
XX
PR   22-JUN-1993;   93US-00081448.
XX
PA   (ARCH-) ARCH DEV CORP.
PA   (UNMI ) UNIV MICHIGAN.
XX
PI   Thompson CB,  Boise LH,  Nunez G;
XX
DR   WPI; 1995-052079/07.
DR   N-PSDB; AAQ81696.
XX
PT   New poly-nucleotide encoding new poly-peptide(s) that modify apoptosis -
PT   and related vectors, recombinant cells and antibodies, useful in assay
PT   and for control of cell death in e.g. neuronal cells, lymphocytes and
PT   cancers.
XX
PS   Claim 4; Page 87; 127pp; English.
XX
CC   This protein may be expressed recombinantly, particularly with pcmV
CC   plasmids as vectors for expression in mammalian cell cultures. The
CC   protein has particular application in cancer cells (failure of programmed
CC   cell death (PCD)) or neurodegenerative and autoimmune diseases (premature
CC   PCD), e.g. Parkinson's disease, amylotrophic lateral sclerosis and
CC   multiple sclerosis. (Updated on 25-MAR-2003 to correct PN field.)
CC   (Updated on 16-OCT-2003 to standardise OS field)
XX
SQ   Sequence 190 AA;

  AAR68884  Length: 190  May 13, 2004 16:42  Type: P  Check: 5509  ..

       1  MSSSNRELVI DFVSYKLSQR GHCWSELEEE DENRTDTAAE AEMDSVLNGS

      51  PSWHPPAGHV VNGATVHRSS LEVHEIVRAS DVRQALRDAG DEFELRYRRA

     101  FSDLTSQLHI TPGTAYQSFE QVVNELFHDG VNWGRIVAFF SFGGALCVES

     151  VDKEMRVLVG RIVSWMTTYL TDHLDPWIQE NGGWVRTALP

!!AA_SEQUENCE 1.0
ID   AAR68888 standard; protein; 170 AA.
XX
AC   AAR68888;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1995  (first entry)
XX
DE   Human thymus BCL-XS.
XX
KW   BCL-XS; apoptosis; cell death; cancer; neurodegenerative disease;
KW   autoimmune disease; Parkinson disease; amylotrophic lateral sclerosis;
KW   multiple sclerosis.
XX
OS   Homo sapiens.
XX
PN   WO9500642-A1.
XX
PD   05-JAN-1995.
XX
PF   22-JUN-1994;   94WO-US007089.
XX
PR   22-JUN-1993;   93US-00081448.
XX
PA   (ARCH-) ARCH DEV CORP.
PA   (UNMI ) UNIV MICHIGAN.
```

XX
PI Thompson CB, Boise LH, Nunez G;
XX
DR WPI; 1995-052079/07.
DR N-PSDB; AAQ81699.
XX
PT New poly-nucleotide encoding new poly-peptide(s) that modify apoptosis -
PT and related vectors, recombinant cells and antibodies, useful in assay
PT and for control of cell death in e.g. neuronal cells, lymphocytes and
PT cancers.
XX
PS Claim 3; Page 98; 127pp; English.
XX
CC This protein may be expressed recombinantly, particularly with pcmV
CC plasmids as vectors for expression in mammalian cell cultures. The
CC protein has particular application in cancer cells (failure of programmed
CC cell death (PCD)) or neurodegenerative and autoimmune diseases (premature
CC PCD), e.g. Parkinson's disease, amylotrophic lateral sclerosis and
CC multiple sclerosis. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 170 AA;

AAR68888 Length: 170 May 13, 2004 16:42 Type: P Check: 4802 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQDTFVE LYGNNAAAES RKGQERFNRW

151 FLTGMTVAGV VLLGSLFSRK

!!AA_SEQUENCE 1.0
ID AAW05821 standard; protein; 233 AA.
XX
AC AAW05821;
XX
DT 30-MAR-1997 (first entry)
XX
DE Bcl-XL protein.
XX
KW Human; bcl-XL; T-lymphocyte; cell death; BH1 domain; BH2 domain;
KW Bcl-2 homology domain; gene therapy; HIV; AIDS; antisense;
KW immune disorder; autoimmune disease; graft rejection;
KW graft-versus-host disease; apoptosis; adoptive immunotherapy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 129. .148
FT /note= "BH1 domain"
FT Domain 180. .191
FT /note= "BH2 domain"
XX
PN WO9634956-A1.
XX
PD 07-NOV-1996.
XX
PF 02-MAY-1996; 96WO-US006203.
XX
PR 04-MAY-1995; 95US-00435518.
PR 07-JUN-1995; 95US-00481739.
XX
PA (USNA) US SEC OF NAVY.
PA (ARCH-) ARCH DEV CORP.
XX
PI June CH, Thompson CB;
XX
DR WPI; 1996-506159/50.
DR N-PSDB; AAT40079.
XX
PT Inducing or preventing death of T cells by bcl-XL protein regulation -
PT used to increase survival of HIV infected cells or to down:regulate
PT immune responses in immune diseases.
XX
PS Disclosure; Page 52-53; 76pp; English.
XX
CC This is the sequence of a human bcl-XL protein, which protects T-
CC lymphocytes against cell death. A splice variant form, bcl-XS, lacks a
CC stretch of 63 amino acids, and is a dominant negative regulator of bcl-XL
CC function. The gene may be modified to facilitate interaction with
CC costimulatory Bax protein and inhibit interaction with antagonistic Bad
CC protein, by modification of the Bcl-2 homology domains BH1 and/or BH2.
CC The bcl-XL gene may be introduced into T-cells in vivo or ex vivo via
CC gene transfer using a vector for HIV infection gene therapy, to augment
CC intracellular bcl-XL protein levels and protect from cell death. A
CC corresponding antisense oligonucleotide or expression vector may be used
CC in gene therapy of e.g. autoimmune disease, graft rejection or graft-
CC versus-host disease, to induce cell death (e.g. apoptosis) and down-
CC regulate the immune response in a T-lymphocyte population
XX
SQ Sequence 233 AA;

AAW05821 Length: 233 May 13, 2004 16:42 Type: P Check: 5418 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID AAW31530 standard; protein; 233 AA.
XX
AC AAW31530;
XX
DT 19-FEB-1998 (first entry)
XX
DE Human anti-apoptotic BCL-XL protein.
XX
KW BCL-XL; anti-apoptotic protein; human; nuclear factor-kappa B;
KW NF-kappa B; inhibitor; organ transplant; tissue transplant; inflammation;
KW gene therapy; endothelial cell.
XX
OS Homo sapiens.
XX
PN WO9730083-A1.
XX
PD 21-AUG-1997.
XX
PF 13-FEB-1997; 97WO-EP000676.
XX
PR 14-FEB-1996; 96US-00601515.
PR 19-APR-1996; 96US-00634995.
XX
PA (NOVS) NOVARTIS AG.
PA (NEWE-) NEW ENGLAND DEACONESS HOSPITAL.
XX
PI Bach FH, Ferran C;
XX
DR WPI; 1997-424975/39.
XX
PT Recombinant endothelial cell containing DNA encoding anti-apoptotic
PT protein - is less susceptible to inflammatory response and is useful for
PT generating tissues or organs for transplantation.
XX
PS Claim 6; Page 46; 75pp; English.
XX
CC This protein sequence comprises human BCL-XL, a protein capable of
CC blocking or suppressing NF-kappa B (NF-kB) activation. A claimed method
CC of genetically modifying a mammalian endothelial cell to render it less
CC susceptible to an inflammatory or other immunological stimulus comprises

```
CC   inserting into the cell, DNA encoding an anti-apoptotic protein able to
CC   inhibit NF-kB, and expressing the cell such that NF-kB activation of the
CC   cell is inhibited in the presence of the the cellular activating
CC   stimulus. Suitable anti-apoptotic proteins include A20 (see AAW31528),
CC   BCL-2 (see AAW31529), BCL-XL and A1 (see AAW31531) and their deletion
CC   mutants capable of inhibiting NF-kB, such as polypeptides comprising
CC   amino acid residues 5-24, 86-100, 129-148 and 180-195 of BCL-XL. Also
CC   claimed are: (1) a mammalian endothelial cell modified by the above
CC   method: and (2) a non-human transgenic or somatic recombinant mammal
CC   comprising DNA encoding an anti-apoptotic protein of a different species.
CC   The method can be used to generate donor endothelial cells or graftable
CC   tissues or organs for transplantation into recipient species
XX
SQ   Sequence 233 AA;

  AAW31530  Length: 233  May 13, 2004 16:42  Type: P  Check: 5418  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   AAW36047 standard; protein; 193 AA.
XX
AC   AAW36047;
XX
DT   22-APR-1998  (first entry)
XX
DE   Human bcl-w protein.
XX
KW   Bcl-w; apoptosis; bcl-2; cell survival; treatment; therapy; cancer;
KW   diagnosis; degenerative disease.
XX
OS   Homo sapiens.
XX
PN   WO9735971-A1.
XX
PD   02-OCT-1997.
XX
PF   27-MAR-1997;   97WO-AU000199.
XX
PR   27-MAR-1996;   96AU-00008965.
XX
PA   (AMRA-) AMRAD OPERATIONS PTY LTD.
XX
PI   Cory S,  Adams JM,  Gibson LM,  Holmgreen SP;
XX
DR   WPI; 1997-489635/45.
DR   N-PSDB; AAT96577.
XX
PT   Nucleic acid encoding apoptosis related gene bcl-w - used to induce or
PT   inhibit cell survival, e.g. for treatment of cancer and degenerative
PT   diseases.
XX
PS   Claim 6; Page 48; 86pp; English.
XX
CC   This sequence represents a novel human protein, bcl-w, encoded by the bcl
CC   -2 gene family and extracted from an adult brain library. This gene
CC   promotes cell survival, so its modulation is useful in treatment of
CC   cancer or auto-immune diseases, degenerative diseases (e.g. stroke,
CC   Alzheimer's disease, myocardial infarct, muscular degeneration, hypoxia,
CC   ischaemia, human immunodeficiency virus infection or in cell transplants.
CC   Up-regulation of the gene can also be used to modify cell lines cultured
CC   in vivo, e.g. to develop new lines, to facilitate isolation of hybridomas
CC   and to increase survival of primary explants during genetic modification.
CC   It can be used to produce recombinant Bcl-w for therapy, diagnosis,
CC   antibody production or screening of potential modulators
XX
SQ   Sequence 193 AA;

  AAW36047  Length: 193  May 13, 2004 16:42  Type: P  Check: 9620  ..

       1  MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  LFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLVDWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   AAW36048 standard; protein; 168 AA.
XX
AC   AAW36048;
XX
DT   22-APR-1998  (first entry)
XX
DE   Mouse bcl-w protein.
XX
KW   Bcl-w; apoptosis; bcl-2; cell survival; treatment; therapy; cancer;
KW   diagnosis; degenerative disease.
XX
OS   Mus sp.
XX
PN   WO9735971-A1.
XX
PD   02-OCT-1997.
XX
PF   27-MAR-1997;   97WO-AU000199.
XX
PR   27-MAR-1996;   96AU-00008965.
XX
PA   (AMRA-) AMRAD OPERATIONS PTY LTD.
XX
PI   Cory S,  Adams JM,  Gibson LM,  Holmgreen SP;
XX
DR   WPI; 1997-489635/45.
DR   N-PSDB; AAT96578.
XX
PT   Nucleic acid encoding apoptosis related gene bcl-w - used to induce or
PT   inhibit cell survival, e.g. for treatment of cancer and degenerative
PT   diseases.
XX
PS   Claim 6; Page 50-51; 86pp; English.
XX
CC   This sequence represents a novel protein, bcl-w, encoded by the mouse bcl
CC   -2 gene family. This gene promotes cell survival, so its modulation is
CC   useful in treatment of cancer or auto-immune diseases, degenerative
CC   diseases (e.g. stroke, Alzheimer's disease, myocardial infarct, muscular
CC   degeneration, hypoxia, ischaemia, human immunodeficiency virus infection
CC   or in cell transplants. Up-regulation of the gene can also be used to
CC   modify cell lines cultured in vivo, e.g. to develop new lines, to
CC   facilitate isolation of hybridomas and to increase survival of primary
CC   explants during genetic modification. It can be used to produce
CC   recombinant Bcl-w for therapy, diagnosis, antibody production or
CC   screening of potential modulators
XX
SQ   Sequence 168 AA;

  AAW36048  Length: 168  May 13, 2004 16:42  Type: P  Check: 6924  ..

       1  MPTPASTPDT RALVADFVGY RLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQDWIVAYL ETRLADWIHS SGGWADFTAL

     151  YGDGALEDAR RLREGNWA

!!AA_SEQUENCE 1.0
```

```
ID   AAW19396 standard; protein; 225 AA.
XX
AC   AAW19396;
XX
DT   25-MAR-2003  (revised)
DT   05-MAR-1998  (first entry)
XX
DE   "Deprenyl" (RTM)-induced protein 1.
XX
KW   Deprenyl-induced protein; neuroactive drug; neural cell; apoptosis;
KW   neurodegenerative disorder; oligodendrocyte; multiple sclerosis.
XX
OS   Rattus rattus.
XX
PN   WO9725421-A2.
XX
PD   17-JUL-1997.
XX
PF   21-DEC-1996;   96WO-EP005800.
XX
PR   12-JAN-1996;   96GB-00000660.
XX
PA   (NOVS ) NOVARTIS AG.
XX
PI   Fuerst P,  Waldmeier P,  Tatton WG;
XX
DR   WPI; 1997-384980/35.
XX
PT   New isolated "Deprenyl" (RTM)-induced protein - used to develop products
PT   for use in the diagnosis and treatment of neural disorders, especially by
PT   rescuing cells from apoptosis.
XX
PS   Claim 2; Page 25-26; 30pp; English.
XX
CC   The present sequence represents "Deprenyl" (RTM)-induced protein (DIP), a
CC   novel protein in neural cells. This protein is induced by the neuroactive
CC   drug "Deprenyl" (RTM). DIP 1 and compounds which modulate its activity
CC   can be used for the diagnosis and treatment of neuro- degenerative
CC   disorders, particularly apoptosis in neural cells. Such apoptosis is
CC   associated with diseases such as Alzheimer's, Parkinson's and
CC   Huntington's, as well as cerebellar degeneration and oligodendrocyte
CC   death in multiple sclerosis. (Updated on 25-MAR-2003 to correct PI
CC   field.)
XX
SQ   Sequence 225 AA;

  AAW19396  Length: 225  May 13, 2004 16:42  Type: P  Check: 4988  ..

       1  MSQSANRELV VDSLSYKLSQ KGYSWSQFSB VEENRTRETP SAINGNPSWH

      51  LABSPEVNGA TGHSSSLDAR EVIPMAAVKQ ALREAGDEFE LRYRRAFSDL

     101  TSQLHITPGT AYQSFEQVVN ELFRDGVNWG RIVAFFSFGG ALCVESVDKE

     151  MQVLVSRIAS WMATYLNDHL EPWIQENGGW DTFVDLYGNN AAAESRKGQE

     201  RFNRWFLTGM TVAGVVLLGS LFSRK

!!AA_SEQUENCE 1.0
ID   AAW61392 standard; protein; 193 AA.
XX
AC   AAW61392;
XX
DT   02-OCT-1998  (first entry)
XX
DE   Human bcl-y protein.
XX
KW   bcl-y; bcl-2; cell death pathway; apoptotic; apoptosis; human.
XX
OS   Homo sapiens.
XX
PN   US5789201-A.
XX
PD   04-AUG-1998.
XX
PF   11-FEB-1997;   97US-00798897.
XX
PR   23-FEB-1996;   96US-0012201P.
XX
PA   (COCE-) COCENSYS INC.
XX
PI   Guastella J;
XX
DR   WPI; 1998-446079/38.
DR   N-PSDB; AAV28334.
XX
PT   Nucleic acids encoding B-cell lymphoma-y protein - useful for producing
PT   recombinant protein for use in treating uncontrolled cell growth e.g.
PT   cancers.
XX
PS   Example; Column 17/18; 27pp; English.
XX
CC   The mammalian bcl-y protein is a member of the bcl-2 family, components
CC   in the cell death pathway. The bcl-2 family have both apoptotic activity
CC   and the apoptosis blocking activity. bcl-y falls in the apoptosis
CC   activity category. The recombinant protein may be used to prevent
CC   uncontrolled cell growth, either by its direct administration to
CC   recombinant genetic constructs to increase its expression in vivo. Also,
CC   antisense constructs can be used in disorders where prevention of cell
CC   death is desired
XX
SQ   Sequence 193 AA;

  AAW61392  Length: 193  May 13, 2004 16:42  Type: P  Check: 9679  ..

       1  MATPASAPDT RALVEDFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   AAW61391 standard; protein; 193 AA.
XX
AC   AAW61391;
XX
DT   02-OCT-1998  (first entry)
XX
DE   Rat bcl-y protein.
XX
KW   bcl-y; bcl-2; cell death pathway; apoptotic; apoptosis; rat.
XX
OS   Rattus sp.
XX
PN   US5789201-A.
XX
PD   04-AUG-1998.
XX
PF   11-FEB-1997;   97US-00798897.
XX
PR   23-FEB-1996;   96US-0012201P.
XX
PA   (COCE-) COCENSYS INC.
XX
PI   Guastella J;
XX
DR   WPI; 1998-446079/38.
DR   N-PSDB; AAV28333.
XX
PT   Nucleic acids encoding B-cell lymphoma-y protein - useful for producing
PT   recombinant protein for use in treating uncontrolled cell growth e.g.
PT   cancers.
XX
PS   Example; Fig 3A; 27pp; English.
```

```
XX
CC   The mammalian bcl-y protein is a member of the bcl-2 family, components
CC   in the cell death pathway. The bcl-2 family have both apoptotic activity
CC   and the apoptosis blocking activity. bcl-y falls in the apoptosis
CC   activity category. The recombinant protein may be used to prevent
CC   uncontrolled cell growth, either by its direct administration to
CC   recombinant genetic constructs to increase its expression in vivo. Also,
CC   antisense constructs can be used in disorders where prevention of cell
CC   death is desired
XX
SQ   Sequence 193 AA;

     AAW61391  Length: 193  May 13, 2004 16:42  Type: P  Check: 8  ..

       1  MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQDWMVTYL ETRLADWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   AAW48312 standard; protein; 235 AA.
XX
AC   AAW48312;
XX
DT   25-MAR-2003  (revised)
DT   20-JUL-1998  (first entry)
XX
DE   Mouse BCL-x gamma.
XX
KW   Bcl-x gamma; mouse; apoptosis; T cell receptor; immunodeficiency;
KW   autoimmune disorder; graft-versus-host disease; diabetes mellitus;
KW   arthritis; multiple sclerosis; myasthenia gravis; dermatitis;
KW   systemic lupus erythematosus; autoimmune thyroiditis; allergy; psoriasis;
KW   Sjogren's Syndrome; alopecia areata; Crohn's disease; aphthous ulcer;
KW   iritis; conjunctivitis; keratoconjunctivitis; ulcerative colitis; asthma;
KW   cutaneous lupus erythematosus; scleroderma; vaginitis; proctitis;
KW   erythema nodosum leprosum; leprosy; autoimmune uveitis;
KW   allergic encephalomyelitis;
KW   acute necrotising haemorrhagic encephalopathy; anaemia;
KW   idiopathic bilateral progressive sensorineural hearing loss;
KW   thrombocytopenia; polychondritis; Wegener's granulomatosis;
KW   chronic active hepatitis; Stevens-Johnson syndrome; sarcoidosis;
KW   idiopathic sprue; lichen planus; Graves ophthalmopathy;
KW   primary biliary cirrhosis; uveitis posterior; lung fibrosis;
KW   reticular dysgenesis; agammaglobulinaemia, hypogammaglobulinaemia;
KW   Wiskott-Aldrich syndrome; ataxia telangiectasia; DiGeorge syndrome;
KW   Bloom syndrome; Fanconi anaemia; AIDS; therapy; diagnosis.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   Domain          185. .235
FT                   /note= "gamma domain"
FT   Domain          185. .217
FT                   /note= "ankyrin domain"
XX
PN   WO9805777-A2.
XX
PD   12-FEB-1998.
XX
PF   23-JUL-1997;   97WO-US012899.
XX
PR   02-AUG-1996;   96US-0023666P.
XX
PA   (DAND ) DANA FARBER CANCER INST INC.
XX
PI   Yang X,  Weber GF,  Cantor H;
XX
DR   WPI; 1998-145613/13.
DR   N-PSDB; AAV17638.
XX
PT   BCL-x gamma, a new isoform of the BCL-x family of proteins - provides
PT   resistance to T cell receptor dependent apoptosis, used to develop
PT   products for treating autoimmune disorders or immunodeficiencies.
XX
PS   Claim 8; Page 84; 123pp; English.
XX
CC   This amino acid sequence comprises mouse BCL-x gamma, a novel isoform of
CC   the BCL-x family that has a novel C-terminal gamma domain. The sequence
CC   was deduced from an isolated cDNA clone (see AAV17638) from a thymus cDNA
CC   library. n ankyrin domain and which is predominantly expressed in T-
CC   lymphocytes and which is associated with resistance to apoptosis. BCL-x
CC   gamma polypeptides can be expressed in host cells and used to screen for
CC   modulator compounds. BCL-x gamma activity can be down-modulated in order
CC   to ameliorate an autoimmune disorder such as graft-versus-host disease,
CC   cases of transplantation, and autoimmune diseases e.g. diabetes mellitus,
CC   arthritis, multiple sclerosis, myasthenia gravis, systemic lupus
CC   erythematosus, autoimmune thyroiditis, dermatitis, psoriasis, Sjogren's
CC   syndrome, alopecia areata, allergic responses to arthropod bite, Crohn's
CC   disease, aphthous ulcer, iritis, conjunctivitis, keratoconjunctivitis,
CC   ulcerative colitis, asthma, cutaneous lupus erythematosus, scleroderma,
CC   vaginitis, proctitis, drug eruptions, leprosy reversal reactions,
CC   erythema nodosum leprosum, autoimmune uveitis, allergic
CC   encephalomyelitis, acute necrotising haemorrhagic encephalopathy,
CC   idiopathic bilateral progressive sensorineural hearing loss, aplastic
CC   anaemia, pure red cell anaemia, idiopathic thrombocytopenia,
CC   polychondritis, Wegener's granulomatosis, chronic active hepatitis,
CC   Stevens-Johnson syndrome, idiopathic sprue, lichen planus, Graves
CC   ophthalmopathy, sarcoidosis, primary biliary cirrhosis, uveitis
CC   posterior, and interstitial lung fibrosis. BCL-x gamma activity can be
CC   upmodulated, e.g. by gene therapy, to ameliorate e.g. severe combined
CC   immunodeficiency, adenosine deaminase deficiency, purine nucleoside
CC   phosphorylase deficiency, MHC class II deficiency, reticular dysgenesis,
CC   X-linked agammaglobulinaemia, X-linked hypogammaglobulinaemia, Ig
CC   deficiency with increased IgM, Ig heavy chain-gene deletions, k-chain
CC   deficiency IgA deficiency, selective deficiency of IgG subclass, common
CC   variable immunodeficiency, transient hypogammaglobulinaemia of infancy,
CC   Wiskott-Aldrich syndrome, ataxia telangiectasia, DiGeorge syndrome, Bloom
CC   syndrome, Fanconi anaemia, and Down syndrome-related immunodeficiency, as
CC   well as other syndromes associated with immunodeficiency and
CC   immunodeficiencies resulting from other causes, such as HIV disease and
CC   AIDS. Additionally, it may be desirable to upregulate BCL-x gamma
CC   activity to increase T cell survival in the case of other disorders, e.g.
CC   cellular responses to tumours, or pathogens. (Updated on 25-MAR-2003 to
CC   correct PF field.)
XX
SQ   Sequence 235 AA;

  AAW48312  Length: 235  May 13, 2004 16:42  Type: P  Check: 7920  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEARRETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWGV SGGTPLRSVF

     201  RRLVQVPGVA EHVCDPSLWE VETEGSEVQG PPQLL

!!AA_SEQUENCE 1.0
ID   AAW59884 standard; protein; 365 AA.
XX
AC   AAW59884;
XX
DT   20-NOV-1998  (first entry)
XX
DE   Amino acid sequence of the cDNA clone Bcl-like (HAICH29).
XX
KW   Bcl-like (HAICH29); chronic inflammatory disease; allergic reaction;
KW   immunological disorder; autoimmune disease; anti-infectious agent.
XX
OS   Homo sapiens.
```

XX
PN WO9831800-A2.
XX
PD 23-JUL-1998.
XX
PF 21-JAN-1998; 98WO-US000960.
XX
PR 21-JAN-1997; 97US-0034204P.
PR 21-JAN-1997; 97US-0034205P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (AUCK-) AUCKLAND UNISERVICES LTD.
XX
PI Ni J, Rosen CA, Gentz RL, Feng P, Krissansen GW, Su JY;
XX
DR WPI; 1998-414099/35.
DR N-PSDB; AAV41925.
XX
PT New isolated polynucleotides and encoded polypeptides - used to develop
PT products for treating e.g. inflammatory diseases, infections,
PT immunological disorders, autoimmune diseases, allergies or tumours.
XX
PS Claim 1; Fig 12A-12D; 120pp; English.
XX
CC This is the amino acid sequence of the cDNA clone Bcl-like (HAICH29),
CC used in the method of the invention. The products of the clone can be
CC used for treating conditions associated with abnormal expression of the
CC polypeptides. They can be used for e.g. treating chronic inflammatory
CC diseases, immunological disorders, autoimmune diseases, inflammatory
CC diseases, various allergies, and as anti-infectious agents. The products
CC can also be used for detection and diagnosis
XX
SQ Sequence 365 AA;

AAW59884 Length: 365 May 13, 2004 16:42 Type: P Check: 9527 ..

1 MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWLSQITE

151 AEMADEVICS EILSDCDSAA SSPDLEELEA IKARVREMEE EAEKLKELQN

201 EVEKQMNMSP PPGNAGPVIM SIEEKMEADA RSIYVGNVDY GATAEELEAH

251 FHGCGSVNRV TILCDKFSGH PKGFAYIEFS DKESVRTSLA LDESLFRGRQ

301 IKVIPKRTNR PGISTTDRGF PRAPYRARTT NYNSSRSRFY SGFNSRPRGR

351 VYRGRARATS WYSPY

!!AA_SEQUENCE 1.0
ID AAY29885 standard; peptide; 9 AA.
XX
AC AAY29885;
XX
DT 18-NOV-1999 (first entry)
XX
DE RY domain death inhibiting peptide Bcl-xl.
XX
KW RY domain; cell death; apoptosis; inhibition; regulation; Bcl-2;
KW neurodegenerative disorder; cerebral stroke; myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO9943701-A2.
XX
PD 02-SEP-1999.
XX
PF 16-FEB-1999; 99WO-IL000096.
XX
PR 24-FEB-1998; 98IL-00123429.
XX
PA (NSTN-) NST NEUROSURVIVAL TECHNOLOGIES LTD.
XX
PI Ziv I, Shirvan A;
XX
DR WPI; 1999-550858/46.
XX
PT New RY domain peptides, used for inhibiting cell death, particularly for
PT treating disorders, e.g. neurodegenerative disorders, cerebral strokes or
PT myocardial infarction.
XX
PS Claim 7; Page 23; 37pp; English.
XX
CC The present sequence represents a specifically claimed RY domain peptide
CC which inhibits cell death (apoptosis). The RY domain peptide can be used
CC for increasing the number of viable cells in a biological tissue or for
CC the enhancement of survival of biological cells. It can be used for
CC treating disorders caused by the inappropriate activation of apoptosis,
CC e.g. neurodegenerative disorders, cerebral strokes or myocardial
CC infarction
XX
SQ Sequence 9 AA;

AAY29885 Length: 9 May 13, 2004 16:42 Type: P Check: 3425 ..

1 FELRYRRAF

!!AA_SEQUENCE 1.0
ID AAY29887 standard; peptide; 9 AA.
XX
AC AAY29887;
XX
DT 18-NOV-1999 (first entry)
XX
DE RY domain death inhibiting peptide Bcl-w.
XX
KW RY domain; cell death; apoptosis; inhibition; regulation; Bcl-2;
KW neurodegenerative disorder; cerebral stroke; myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO9943701-A2.
XX
PD 02-SEP-1999.
XX
PF 16-FEB-1999; 99WO-IL000096.
XX
PR 24-FEB-1998; 98IL-00123429.
XX
PA (NSTN-) NST NEUROSURVIVAL TECHNOLOGIES LTD.
XX
PI Ziv I, Shirvan A;
XX
DR WPI; 1999-550858/46.
XX
PT New RY domain peptides, used for inhibiting cell death, particularly for
PT treating disorders, e.g. neurodegenerative disorders, cerebral strokes or
PT myocardial infarction.
XX
PS Claim 9; Page 23; 37pp; English.
XX
CC The present sequence represents a specifically claimed RY domain peptide
CC which inhibits cell death (apoptosis). The RY domain peptide can be used
CC for increasing the number of viable cells in a biological tissue or for
CC the enhancement of survival of biological cells. It can be used for
CC treating disorders caused by the inappropriate activation of apoptosis,
CC e.g. neurodegenerative disorders, cerebral strokes or myocardial
CC infarction
XX
SQ Sequence 9 AA;

AAY29887 Length: 9 May 13, 2004 16:42 Type: P Check: 3506 ..

```
     1  FETRFRRTF

!!AA_SEQUENCE 1.0
ID   AAW97392 standard; protein; 193 AA.
XX
AC   AAW97392;
XX
DT   20-MAY-1999  (first entry)
XX
DE   The human bcl-y protein.
XX
KW   Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW   programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW   head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW   multiple sclerosis; myocardial infarction; vitally induced cell death;
KW   aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW   premature cell death; cell death stimulator; prolonged cell life span;
KW   Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS   Homo sapiens.
XX
PN   US5883229-A.
XX
PD   16-MAR-1999.
XX
PF   25-NOV-1997;   97US-00978523.
XX
PR   23-FEB-1996;   96US-0012201P.
PR   11-FEB-1997;   97US-00798897.
XX
PA   (COCE-) COCENSYS INC.
XX
PI   Guastella J;
XX
DR   WPI; 1999-214150/18.
DR   N-PSDB; AAX15946.
XX
PT   Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT   modulating programmed cell death.
XX
PS   Claim 1; Col 17-18; 26pp; English.
XX
CC   The present sequence represents human bcl-y protein (Hbcl-y). The
CC   specification also describes rat bcl-y protein (Rbcl-y). Rbcl-y and Hbcl-
CC   y are homologues of the bcl-2 protein thought to be involved in
CC   programmed cell death (apoptosis and necrosis). Rbcl-y and Hbcl-y
CC   proteins may be used to treat conditions associated with a disruption of
CC   the cell death pathway. If they act as cell death inhibitors, they may be
CC   used in therapies to treat subjects suffering from: strokes, head trauma,
CC   Alzheimer's Disease, neural and muscular degenerative diseases
CC   (especially multiple sclerosis), myocardial infarction, vitally induced
CC   cell death, aging, spinal cord injuries and amyotrophic lateral sclerosis
CC   - conditions where cells under go premature cell death as a result of
CC   triggers which may or may not be apparent. They may also be used in this
CC   way to develop cell lines which remain viable in culture for an extended
CC   period. In contrast, if they act as cell death stimulators, Rbcl-y and
CC   Hbcl-y may be used to treat conditions associated with prolonged cell
CC   life span such as cancer (especially kaposi's sarcoma and lung cancer)
CC   and auto/hyperimmune diseases. They may also be used to cause cell death
CC   in, and hence control, parasites
XX
SQ   Sequence 193 AA;

  AAW97392  Length: 193  May 13, 2004 16:42  Type: P  Check: 9679  ..

     1  MATPASAPDT RALVEDFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

    51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

   101  VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWAEFTAL

   151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   AAW97394 standard; protein; 192 AA.
XX
AC   AAW97394;
XX
DT   20-MAY-1999  (first entry)
XX
DE   Mammalian bcl-y protein.
XX
KW   Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW   programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW   head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW   multiple sclerosis; myocardial infarction; vitally induced cell death;
KW   aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW   premature cell death; cell death stimulator; prolonged cell life span;
KW   Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS   Mammalia.
XX
PN   US5883229-A.
XX
PD   16-MAR-1999.
XX
PF   25-NOV-1997;   97US-00978523.
XX
PR   23-FEB-1996;   96US-0012201P.
PR   11-FEB-1997;   97US-00798897.
XX
PA   (COCE-) COCENSYS INC.
XX
PI   Guastella J;
XX
DR   WPI; 1999-214150/18.
XX
PT   Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT   modulating programmed cell death.
XX
PS   Claim 2; Col 19-22; 26pp; English.
XX
CC   The present sequence represents a mammalian bcy-1 protein. The
CC   specification describes rat bcl-y protein (Rbcl-y) and human bcl-y
CC   protein (Hbcl-y). Rbcl-y and Hbcl-y are homologues of the bcl-2 protein
CC   thought to be involved in programmed cell death (apoptosis and necrosis).
CC   Rbcl-y and Hbcl-y proteins may be used to treat conditions associated
CC   with a disruption of the cell death pathway. If they act as cell death
CC   inhibitors, they may be used in therapies to treat subjects suffering
CC   from: strokes, head trauma, Alzheimer's Disease, neural and muscular
CC   degenerative diseases (especially multiple sclerosis), myocardial
CC   infarction, vitally induced cell death, aging, spinal cord injuries and
CC   amyotrophic lateral sclerosis- conditions where cells under go premature
CC   cell death as a result of triggers which may or may not be apparent. They
CC   may also be used in this way to develop cell lines which remain viable in
CC   culture for an extended period. In contrast, if they act as cell death
CC   stimulators, Rbcl-y and Hbcl-y may be used to treat conditions associated
CC   with prolonged cell life span such as cancer (especially kaposi's sarcoma
CC   and lung cancer) and auto/hyperimmune diseases. They may also be used to
CC   cause cell death in, and hence control, parasites
XX
SQ   Sequence 192 AA;

  AAW97394  Length: 192  May 13, 2004 16:42  Type: P  Check: 8974  ..

     1  ATPASAPDTR ALVEDFVGYK LRQKGYVCGA GPGEGPAADP LHQAMRAAGD

    51  EFETRFRRTF SDLAAQLHVT PGSAQQRFTQ VSDELFQGGP NWGRLVAFFV

   101  FGAALCAESV NKEMEPLVGQ VQEWMVAYLE TRLADWIHSS GGWAEFTALY

   151  GDGALEEARR LREGNWASVR TVLTGAVALG ALVTVGAFFA SK

!!AA_SEQUENCE 1.0
ID   AAW97393 standard; protein; 192 AA.
XX
```

```
AC   AAW97393;
XX
DT   20-MAY-1999  (first entry)
XX
DE   Protein sequence of the specification.
XX
KW   Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW   programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW   head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW   multiple sclerosis; myocardial infarction; vitally induced cell death;
KW   aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW   premature cell death; cell death stimulator; prolonged cell life span;
KW   Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS   Unidentified.
XX
PN   US5883229-A.
XX
PD   16-MAR-1999.
XX
PF   25-NOV-1997;   97US-00978523.
XX
PR   23-FEB-1996;   96US-0012201P.
PR   11-FEB-1997;   97US-00798897.
XX
PA   (COCE-) COCENSYS INC.
XX
PI   Guastella J;
XX
DR   WPI; 1999-214150/18.
XX
PT   Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT   modulating programmed cell death.
XX
PS   Disclosure; Col 19-20; 26pp; English.
XX
CC   The specification describes rat bcl-y protein (Rbcl-y) and human bcl-y
CC   protein (Hbcl-y). Rbcl-y and Hbcl-y are homologues of the bcl-2 protein
CC   thought to be involved in programmed cell death (apoptosis and necrosis).
CC   Rbcl-y and Hbcl-y proteins may be used to treat conditions associated
CC   with a disruption of the cell death pathway. If they act as cell death
CC   inhibitors, they may be used in therapies to treat subjects suffering
CC   from: strokes, head trauma, Alzheimer's Disease, neural and muscular
CC   degenerative diseases (especially multiple sclerosis), myocardial
CC   infarction, vitally induced cell death, aging, spinal cord injuries and
CC   amyotrophic lateral sclerosis- conditions where cells under go premature
CC   cell death as a result of triggers which may or may not be apparent. They
CC   may also be used in this way to develop cell lines which remain viable in
CC   culture for an extended period. In contrast, if they act as cell death
CC   stimulators, Rbcl-y and Hbcl-y may be used to treat conditions associated
CC   with prolonged cell life span such as cancer (especially kaposi's sarcoma
CC   and lung cancer) and auto/hyperimmune diseases. They may also be used to
CC   cause cell death in, and hence control, parasites
XX
SQ   Sequence 192 AA;

  AAW97393  Length: 192  May 13, 2004 16:42  Type: P  Check: 9270  ..

       1  ATPASTPDTR ALVADFVGYK LRQKGYVCGA GPGEGPAADP LHQAMRAAGD

      51  EFETRFRRTF SDLAAQLHVT PGSAQQRFTQ VSDELFQGGP NWGRLVAFFV

     101  FGAALCAESV NKEMEPLVGQ VQDWMVTYLE TRLADWIHSS GGWAEFTALY

     151  GDGALEEARR LREGNWASVR TVLTGAVALG ALVTVGAFFA SK

!!AA_SEQUENCE 1.0
ID   AAW97391 standard; protein; 193 AA.
XX
AC   AAW97391;
XX
DT   20-MAY-1999  (first entry)
XX
DE   The rat bcl-y protein.
XX
KW   Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW   programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW   head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW   multiple sclerosis; myocardial infarction; vitally induced cell death;
KW   aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW   premature cell death; cell death stimulator; prolonged cell life span;
KW   Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS   Rattus sp.
XX
PN   US5883229-A.
XX
PD   16-MAR-1999.
XX
PF   25-NOV-1997;   97US-00978523.
XX
PR   23-FEB-1996;   96US-0012201P.
PR   11-FEB-1997;   97US-00798897.
XX
PA   (COCE-) COCENSYS INC.
XX
PI   Guastella J;
XX
DR   WPI; 1999-214150/18.
DR   N-PSDB; AAX15945.
XX
PT   Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT   modulating programmed cell death.
XX
PS   Disclosure; Col 15-18; 26pp; English.
XX
CC   The present sequence represents rat bcl-y protein (Rbcl-y). The
CC   specification also describes human bcl-y protein (Hbcl-y). Rbcl-y and
CC   Hbcl-y are homologues of the bcl-2 protein thought to be involved in
CC   programmed cell death (apoptosis and necrosis). Rbcl-y and Hbcl-y
CC   proteins may be used to treat conditions associated with a disruption of
CC   the cell death pathway. If they act as cell death inhibitors, they may be
CC   used in therapies to treat subjects suffering from: strokes, head trauma,
CC   Alzheimer's Disease, neural and muscular degenerative diseases
CC   (especially multiple sclerosis), myocardial infarction, vitally induced
CC   cell death, aging, spinal cord injuries and amyotrophic lateral sclerosis
CC   - conditions where cells under go premature cell death as a result of
CC   triggers which may or may not be apparent. They may also be used in this
CC   way to develop cell lines which remain viable in culture for an extended
CC   period. In contrast, if they act as cell death stimulators, Rbcl-y and
CC   Hbcl-y may be used to treat conditions associated with prolonged cell
CC   life span such as cancer (especially kaposi's sarcoma and lung cancer)
CC   and auto/hyperimmune diseases. They may also be used to cause cell death
CC   in, and hence control, parasites
XX
SQ   Sequence 193 AA;

    AAW97391  Length: 193  May 13, 2004 16:42  Type: P  Check: 8  ..

       1  MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

      51  DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

     101  VFGAALCAES VNKEMEPLVG QVQDWMVTYL ETRLADWIHS SGGWAEFTAL

     151  YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID   AAY05530 standard; protein; 193 AA.
XX
AC   AAY05530;
XX
DT   05-JUL-1999  (first entry)
XX
DE   Human Bcl-w protein essential for spermatogenesis.
XX
```

KW Spermatogenesis; Bcl-3; Bcl-2; human; fertility; infertility;
KW animal model.
XX
OS Homo sapiens.
XX
PN WO9913710-A1.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-AU000764.
XX
PR 16-SEP-1997; 97AU-00009228.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Cory S, Adams J, Print C, Gibson L, Koentgen F;
XX
DR WPI; 1999-243890/20.
DR N-PSDB; AAX25132.
XX
PT An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT protein associated with Bcl-w.
XX
PS Claim 2; Page 33; 52pp; English.
XX
CC The present sequence is human Bcl-w, a pro-survival member of the Bcl-2
CC family which is widely expressed and which is essential for
CC spermatogenesis. The invention relates generally to a method of treatment
CC and to an animal model for the identification of molecules and genetic
CC sequences useful for inducing or reducing fertility of male animals.
CC Methods are provided for the treatment of infertility, or for reducing
CC fertility, by modulating spermatogenesis. An animal model carries a
CC mutation is at least one allele of the human or murine bcl-w gene (see
CC AAX25132-35) or in a gene associated with bcl-w. Such animals have
CC disorganised seminferous tubules and are substantially infertile, but
CC possess no other major abnormalities as determined by histological
CC examination. They can be used to screen for therapeutic molecules
CC including genetic sequences capable of inducing, enhancing or otherwise
CC facilitating spermatogenesis in animals, or which can induce infertility
XX
SQ Sequence 193 AA;

AAY05530 Length: 193 May 13, 2004 16:42 Type: P Check: 9619 ..

1 MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWAEFTAL

151 YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID AAY05532 standard; protein; 193 AA.
XX
AC AAY05532;
XX
DT 05-JUL-1999 (first entry)
XX
DE Human Bcl-w protein essential for spermatogenesis.
XX
KW Spermatogenesis; Bcl-3; Bcl-2; human; fertility; infertility;
KW animal model.
XX
OS Homo sapiens.
XX
PN WO9913710-A1.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-AU000764.
XX
PR 16-SEP-1997; 97AU-00009228.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Cory S, Adams J, Print C, Gibson L, Koentgen F;
XX
DR WPI; 1999-243890/20.
DR N-PSDB; AAX25134.
XX
PT An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT protein associated with Bcl-w.
XX
PS Disclosure; Page 37; 52pp; English.
XX
CC The present sequence is described of a derivative of human Bcl-w (see
CC also AAY05530), a pro-survival member of the Bcl-2 family that is widely
CC expressed and which is essential for spermatogenesis. The invention
CC relates generally to a method of treatment and to an animal model for the
CC identification of molecules and genetic sequences useful for inducing or
CC reducing fertility of male animals. Methods are provided for the
CC treatment of infertility, or for reducing fertility, by modulating
CC spermatogenesis. An animal model carries a mutation is at least one
CC allele of the human or murine bcl-w gene (see AAX25132-35) or in a gene
CC associated with bcl-w. Such animals have disorganised seminferous tubules
CC and are substantially infertile, but possess no other major abnormalities
CC as determined by histological examination. They can be used to screen for
CC therapeutic molecules including genetic sequences capable of inducing,
CC enhancing or otherwise facilitating spermatogenesis in animals, or which
CC can induce infertility
XX
SQ Sequence 193 AA;

AAY05532 Length: 193 May 13, 2004 16:42 Type: P Check: 9620 ..

1 MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 LFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLVDWIHS SGGWAEFTAL

151 YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID AAY05531 standard; protein; 193 AA.
XX
AC AAY05531;
XX
DT 05-JUL-1999 (first entry)
XX
DE Mouse Bcl-w protein essential for spermatogenesis.
XX
KW Spermatogenesis; Bcl-3; Bcl-2; mouse; fertility; infertility;
KW animal model.
XX
OS Mus sp.
XX
PN WO9913710-A1.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-AU000764.
XX
PR 16-SEP-1997; 97AU-00009228.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Cory S, Adams J, Print C, Gibson L, Koentgen F;
XX
DR WPI; 1999-243890/20.
DR N-PSDB; AAX25133.
XX
PT An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT protein associated with Bcl-w.
XX

PS Claim 2; Page 35; 52pp; English.
XX
CC The present sequence is mouse Bcl-w, a pro-survival member of the Bcl-2
CC family which is widely expressed and which is essential for
CC spermatogenesis. The invention relates generally to a method of treatment
CC and to an animal model for the identification of molecules and genetic
CC sequences useful for inducing or reducing fertility of male animals.
CC Methods are provided for the treatment of infertility, or for reducing
CC fertility, by modulating spermatogenesis. An animal model carries a
CC mutation is at least one allele of the human or murine bcl-w gene (see
CC AAX25132-35) or in a gene associated with bcl-w. Such animals have
CC disorganised seminferous tubules and are substantially infertile, but
CC possess no other major abnormalities as determined by histological
CC examination. They can be used to screen for therapeutic molecules
CC including genetic sequences capable of inducing, enhancing or otherwise
CC facilitating spermatogenesis in animals, or which can induce infertility
XX
SQ Sequence 193 AA;

AAY05531 Length: 193 May 13, 2004 16:42 Type: P Check: 9742 ..

1 MATPASTPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQDWMVAYL ETRLADWIHS SGGWAEFTAL

151 YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID AAY05533 standard; protein; 192 AA.
XX
AC AAY05533;
XX
DT 05-JUL-1999 (first entry)
XX
DE Mouse Bcl-w protein deritvative.
XX
KW Spermatogenesis; Bcl-3; Bcl-2; mouse; fertility; infertility;
KW animal model.
XX
OS Mus sp.
XX
PN WO9913710-A1.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-AU000764.
XX
PR 16-SEP-1997; 97AU-00009228.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Cory S, Adams J, Print C, Gibson L, Koentgen F;
XX
DR WPI; 1999-243890/20.
DR N-PSDB; AAX25135.
XX
PT An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT protein associated with Bcl-w.
XX
PS Disclosure; Page 39; 52pp; English.
XX
CC The present sequence is described of a derivative of mouse Bcl-w (see
CC also AAY05531), a pro-survival member of the Bcl-2 family that is widely
CC expressed and which is essential for spermatogenesis. The derivative
CC lacks the 24 N-terminal amino acids of Bcl-w. The invention relates
CC generally to a method of treatment and to an animal model for the
CC identification of molecules and genetic sequences useful for inducing or
CC reducing fertility of male animals. Methods are provided for the
CC treatment of infertility, or for reducing fertility, by modulating
CC spermatogenesis. An animal model carries a mutation is at least one
CC allele of the human or murine bcl-w gene (see AAX25132-35) or in a gene
CC associated with bcl-w. Such animals have disorganised seminferous tubules
CC and are substantially infertile, but possess no other major abnormalities
CC as determined by histological examination. They can be used to screen for
CC therapeutic molecules including genetic sequences capable of inducing,
CC enhancing or otherwise facilitating spermatogenesis in animals, or which
CC can induce infertility
XX
SQ Sequence 192 AA;

AAY05533 Length: 192 May 13, 2004 16:42 Type: P Check: 8266 ..

1 MPTPASTPDT RALVADFVGY RLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQDWIVAYL ETRLADWIHS SGGWADFTAL

151 YGDGALEDAR RLREGNWAVS TVVTGAVALG ALVTVGAFFA SK

!!AA_SEQUENCE 1.0
ID AAY69969 standard; protein; 233 AA.
XX
AC AAY69969;
XX
DT 12-APR-2000 (first entry)
XX
DE Human Bcl-XL protein.
XX
KW DP5 protein; neuron death inhibitor; detection; diagnosis; Bcl-2 family;
KW identification; nerve denaturation disease; Alzhemier's disease; Bcl-XL.
XX
OS Homo sapiens.
XX
PN JP11346772-A.
XX
PD 21-DEC-1999.
XX
PF 09-JUN-1998; 98JP-00159780.
XX
PR 09-JUN-1998; 98JP-00159780.
XX
PA (TANA) TANABE SEIYAKU CO.
PA (TOYA/) TOYAMA M.
XX
DR WPI; 2000-109689/10.
XX
PT Screening of a neuron death inhibitor - for the treating and/or
PT preventive agent for nerve denaturation diseases.
XX
PS Disclosure; Page 12; 14pp; Japanese.
XX
CC This sequence represents the human Bcl-XL protein. The invention relates
CC to a method for screening or identifying a neuron death inhibitor in
CC which the inhibiting activity of a sample substance against the formation
CC of a complex of the DP5 protein or its homolog protein with a protein
CC belonging to the Bcl-2 family, is measured. The method is useful as a
CC screening and identifying method for the treating and/or prevention of
CC nerve denaturation diseases, particularly Alzheimer's disease. The drug
CC found or identified by the screening method can be advantageously used
CC for the development of medicines
XX
SQ Sequence 233 AA;

AAY69969 Length: 233 May 13, 2004 16:42 Type: P Check: 5340 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATA HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID AAY83223 standard; protein; 233 AA.
XX
AC AAY83223;
XX
DT 16-AUG-2000 (first entry)
XX
DE Bcl-x polypeptide.
XX
KW Bcl-x; bcl-xs; antisense; therapy; apoptosis; splice site;
KW cell signalling molecule; ultraviolet radiation; UV; cancer;
KW chemotherapy; cytokine; human.
XX
OS Homo sapiens.
XX
PN WO200020432-A1.
XX
PD 13-APR-2000.
XX
PF 28-SEP-1999; 99WO-US022448.
XX
PR 07-OCT-1998; 98US-00167921.
PR 26-MAR-1999; 99US-00277020.
PR 02-JUN-1999; 99US-00323743.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Dean NM, Monia BP, Nickoloff BJ, Zhang Q;
XX
DR WPI; 2000-303730/26.
DR N-PSDB; AAZ93614.
XX
PT Antisense oligonucleotides targeted to, and capable of inhibiting the
PT expression of, bcl-x nucleic acids, useful for sensitizing cancer cells
PT to apoptotic agents.
XX
PS Disclosure; Page 103-104; 115pp; English.
XX
CC Antisense inhibition of bcl-x and bcl-xs expression results in apoptosis.
CC Antisense oligonucleotides directed against bcl-x alter the ratio of bcl-
CC x isoforms expressed by a cell or tissue (i.e. increases or decreases the
CC ratio of bcl-xl to bcl-xs expressed) by altering the splicing of the RNA
CC encoding bcl-x. The antisense oligonucleotide is specifically targeted to
CC a transcript comprising two splice sites which when contacted with the
CC transcript, reduces the relative frequency of splicing at the second
CC splice site so that the resulting ratio of RNA splice products is
CC altered. The use of antisense compounds sensitises cells to the effects
CC of apoptotic stimulants such as a cellular signaling molecule,
CC ultraviolet radiation, a cancer chemotherapeutic drug (e.g. VP-16,
CC cisplatinum or taxol), ceramide (e.g. staurosporine) or a cytokine which
CC causes mitochondrial dysfunction (especially loss of mitochondrial
CC membrane function). The antisense oligonucleotides may have a therapeutic
CC role in the treatment of cancer
XX
SQ Sequence 233 AA;

AAY83223 Length: 233 May 13, 2004 16:42 Type: P Check: 5340 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATA HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID AAB37013 standard; peptide; 27 AA.
XX
AC AAB37013;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #13.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

AAB37013 Length: 27 May 13, 2004 16:42 Type: P Check: 8106 ..

1 EVIPMAAVKQ ALREAGDEFE LRYRRAF

!!AA_SEQUENCE 1.0
ID AAB37024 standard; peptide; 27 AA.
XX
AC AAB37024;
XX
DT 28-FEB-2001 (first entry)

XX
DE Bcl2 polypeptide BH3 domain peptide #24.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

AAB37024 Length: 27 May 13, 2004 16:42 Type: P Check: 8174 ..

1 EGPAADPLHQ AMRAAGDEFE TRFRRTF

!!AA_SEQUENCE 1.0
ID AAB37012 standard; peptide; 27 AA.
XX
AC AAB37012;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #12.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

AAB37012 Length: 27 May 13, 2004 16:42 Type: P Check: 8245 ..

1 EIVRASDVRQ ALRDAGDEFE LRYRRAF

!!AA_SEQUENCE 1.0
ID AAB20495 standard; protein; 212 AA.
XX
AC AAB20495;
XX
DT 09-JUL-2001 (first entry)
XX
DE Human Bcl-xL (transmembrane deleted).
XX
KW Pablo; Bcl-xL; apoptosis; nervous system disorder; gene therapy; mutant;
KW mutein.
XX

OS Homo sapiens.
OS Synthetic.
XX
PN WO200130845-A1.
XX
PD 03-MAY-2001.
XX
PF 20-OCT-2000; 2000WO-US029149.
XX
PR 22-OCT-1999; 99US-00425501.
XX
PA (AMHP) AMERICAN HOME PROD CORP.
XX
PI Mark R, Young KH, Wood A;
XX
DR WPI; 2001-316325/33.
DR N-PSDB; AAF30926.
XX
PT New isolated Pablo polypeptides and polynucleotides that interact with
PT Bcl-xL, useful in regulating neural cellular processes, in chromosome
PT mapping, tissue typing, and forensic identification of a biological
PT sample.
XX
PS Example 1; Fig 11; 151pp; English.
XX
CC The present sequence is that of human Bcl-xL amino acids 1-211, i.e.
CC deleted of the last 22 amino acids, believed to be the transmembrane
CC domain. This was used as bait in a yeast two-hybrid screen designed to
CC identify proteins capable of binding Bcl-xL. A cDNA clone (see AAF30925)
CC encoding Pablo (see AAB20494), or pro-apoptotic Bcl-xL binding protein,
CC was identified in a human brain library. Pablo is pro-apoptotic in neural
CC cells but not in non-neuronal cells. It includes a novel Bcl-xL binding
CC domain which modulates apoptosis in neural cells. The invention provides
CC polypeptides which include Bcl-xL binding domains, novel Bcl-xL binding
CC domains of Pablo polypeptides, nucleic acids encoding such polypeptides,
CC and their uses especially for modulating apoptosis, particularly in
CC neural cells, as well as in the treatment or prevention of disorders that
CC can benefit from modulation of cell death
XX
SQ Sequence 212 AA;

AAB20495 Length: 212 May 13, 2004 16:42 Type: P Check: 2457 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYRNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NR

!!AA_SEQUENCE 1.0
ID ABB42045 standard; peptide; 185 AA.
XX
AC ABB42045;
XX
DT 04-FEB-2002 (first entry)
XX
DE Peptide #9551 encoded by human foetal liver single exon probe.
XX
KW Human; foetal liver; gene expression; single exon nucleic acid probe.
XX
OS Homo sapiens.
XX
PN WO200157277-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000669.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-483447/52.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human fetal liver.
XX
PS Claim 27; SEQ ID NO 34680; 639pp + Sequence Listing; English.
XX
CC The invention relates to a single exon nucleic acid probe for measuring
CC human gene expression in a sample derived from human foetal liver. The
CC single exon nucleic acid probes may be used for predicting, measuring and
CC displaying gene expression in samples derived from human fetal liver. The
CC present sequence is a peptide encoded by a single exon nucleic acid probe
CC of the invention. Note: The sequence data for this patent did not form
CC part of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

ABB42045 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

101 AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

151 SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID AAM35847 standard; protein; 185 AA.
XX
AC AAM35847;
XX
DT 17-OCT-2001 (first entry)
XX
DE Peptide #9884 encoded by probe for measuring placental gene expression.
XX
KW Probe; microarray; human; placenta; antenatal diagnosis;
KW genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200157272-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000663.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488897/53.
XX

PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human placenta.
XX
PS Claim 27; SEQ ID NO 36116; 654pp; English.
XX
CC The present invention relates to single exon nucleic acid probes (SENP:
CC see AAI31315-AAI57546). The present sequence is a peptide encoded by one
CC such probe. The probes are useful for producing a microarray for
CC predicting, measuring and displaying gene expression in samples derived
CC from human placenta. The probes are useful for antenatal diagnosis of
CC human genetic disorders
XX
SQ Sequence 185 AA;

AAM35847 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

101 AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

151 SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID AAB50538 standard; protein; 233 AA.
XX
AC AAB50538;
XX
DT 16-MAR-2001 (first entry)
XX
DE Human Bcl-xL protein sequence SEQ ID NO:4.
XX
KW Human; Bcl-2; Bcl-xL; Bax; VDAC; apoptosis inhibitor; detection;
KW apoptosis promoter; diagnosis.
XX
OS Homo sapiens.
XX
PN JP2000287689-A.
XX
PD 17-OCT-2000.
XX
PF 08-APR-1999; 99JP-00101888.
XX
PR 08-APR-1999; 99JP-00101888.
XX
PA (KAGA-) KAGAKU GIJUTSU SHINKO JIGYODAN.
XX
DR WPI; 2001-065575/08.
DR N-PSDB; AAC90810.
XX
PT Screening of an apoptosis inhibitor or promoter which can be used as a
PT drug and a diagnostic agent for various diseases caused by apoptosis
PT inhibition or apoptosis promotion.
XX
PS Claim 12; Page 15-16; 22pp; Japanese.
XX
CC The present invention describes a method for screening for an apoptosis
CC inhibitor or an apoptosis promoter in which VDAC-liposome, an index
CC substance which can pass VDAC and a sample are incubated and the change
CC in the concentration of the index substance during the incubation is
CC detected to judge the presence of apoptosis inhibition or apoptosis
CC promotion. The apoptosis inhibitor or the apoptosis promoter can be used
CC as a drug and a diagnostic agent for various diseases caused by apoptosis
CC inhibition or apoptosis promotion. The present sequence represents the
CC human Bcl-xL protein, which is an apoptosis inhibitor used in the
CC exemplification of the present invention
XX
SQ Sequence 233 AA;

AAB50538 Length: 233 May 13, 2004 16:42 Type: P Check: 5340 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATA HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID AAB73304 standard; protein; 233 AA.
XX
AC AAB73304;
XX
DT 22-MAY-2001 (first entry)
XX
DE Mutant rat Bcl-xL protein, Bcl-xFNK.
XX
KW Rat Bcl-xL mutant; Bcl-xFNK; apoptosis inhibitor; membrane permeable;
KW programmed cell death inhibitor; wild-type; antiapoptotic;
KW cell death-associated disease; tissue transplant preservative; mutein.
XX
OS Rattus norvegicus.
OS Synthetic.
XX
PN WO200112807-A1.
XX
PD 22-FEB-2001.
XX
PF 17-AUG-2000; 2000WO-JP005502.
XX
PR 17-AUG-1999; 99JP-00230642.
XX
PA (NISC-) JAPAN SCI & TECHNOLOGY CORP.
XX
PI Ohta S, Asoh S;
XX
DR WPI; 2001-211219/21.
XX
PT Modified cDNA of rat bcl-x gene and encoded protein with membrane
PT permeability to enhance uptake for effective inhibition of cell death
PT e.g. apoptosis, useful in remedies for diseases associated with cell
PT death.
XX
PS Claim 1; Page 46-47; 56pp; Japanese.
XX
CC The invention relates to a mutant rat Bcl-x protein and the cDNA encoding
CC it. The mutant rat Bcl-x protein (Bcl-xFNK) has the substitutions Y22F,
CC Q26N, and R165K relative to the wild-type Bcl-xL protein. The invention
CC also encompasses recombinant vectors and host cells comprising the
CC modified nucleic acid sequence. The mutant Bcl-x protein is able to
CC permeate the cell membrane, thus enhancing its ability to be taken up
CC into a cell and to act as an inhibitor of apoptosis (programmed cell
CC death). Bcl-xFNK and nucleic acids encoding it are useful in remedies for
CC diseases associated with cell death and in additives for maintaining the
CC stability of transplanted cells and organs. The present sequence
CC represents the mutant rat Bcl-xL protein, Bcl-xFNK
XX
SQ Sequence 233 AA;

AAB73304 Length: 233 May 13, 2004 16:42 Type: P Check: 5531 ..

1 MSQSNRELVV DFLSYKLSQK GFSWSNFSDV EENRTEAPEE TEPERETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSKIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0

ID AAB73303 standard; protein; 233 AA.
XX
AC AAB73303;
XX
DT 22-MAY-2001 (first entry)
XX
DE Rat wild-type Bcl-xL protein.
XX
KW Rat Bcl-xL; apoptosis inhibitor; programmed cell death inhibitor;
KW wild-type; antiapoptotic; cell death-associated disease;
KW tissue transplant preservative.
XX
OS Rattus norvegicus.
XX
PN WO200112807-A1.
XX
PD 22-FEB-2001.
XX
PF 17-AUG-2000; 2000WO-JP005502.
XX
PR 17-AUG-1999; 99JP-00230642.
XX
PA (NISC-) JAPAN SCI & TECHNOLOGY CORP.
XX
PI Ohta S, Asoh S;
XX
DR WPI; 2001-211219/21.
DR N-PSDB; AAF75960.
XX
PT Modified cDNA of rat bcl-x gene and encoded protein with membrane
PT permeability to enhance uptake for effective inhibition of cell death
PT e.g. apoptosis, useful in remedies for diseases associated with cell
PT death.
XX
PS Claim 6; Page 45-46; 56pp; Japanese.
XX
CC The invention relates to a mutant rat Bcl-x protein and the cDNA encoding
CC it. The mutant rat Bcl-x protein (Bcl-xFNK) has the substitutions Y22F,
CC Q26N, and R165K relative to the wild-type Bcl-xL protein. The invention
CC also encompasses recombinant vectors and host cells comprising the
CC modified nucleic acid sequence. The mutant Bcl-x protein is able to
CC permeate the cell membrane, thus enhancing its ability to be taken up
CC into a cell and to act as an inhibitor of apoptosis (programmed cell
CC death). Bcl-xFNK and nucleic acids encoding it are useful in remedies for
CC diseases associated with cell death and in additives for maintaining the
CC stability of transplanted cells and organs. The present sequence
CC represents wild-type rat Bcl-xL
XX
SQ Sequence 233 AA;

AAB73303 Length: 233 May 13, 2004 16:42 Type: P Check: 6384 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID ABB25656 standard; protein; 185 AA.
XX
AC ABB25656;
XX
DT 23-JAN-2002 (first entry)
XX
DE Protein #7655 encoded by probe for measuring heart cell gene expression.
XX
KW Human; gene expression; heart; microarray; vascular system;
KW cardiovascular disease; hypertension; cardiac arrhythmia;
KW congenital heart disease.
XX
OS Homo sapiens.
XX
PN WO200157274-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000666.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488899/53.
XX
PT Single exon nucleic acid probes for analyzing gene expression in human
PT hearts.
XX
PS Claim 15; SEQ ID NO 27426; 530pp; English.
XX
CC The present invention relates to single exon nucleic acid probes for
CC measuring human gene expression in a sample derived from human heart (see
CC ABA21535-ABA41305). The present sequence is a protein encoded by one such
CC probe. The probes may be used for predicting, measuring and displaying
CC gene expression in samples derived from the human heart via microarrays.
CC By measuring gene expression, the probes are useful for predicting,
CC diagnosing, grading, staging, monitoring and prognosing diseases of the
CC human heart and vascular system e.g. cardiovascular disease,
CC hypertension, cardiac arrhythmias and congenital heart disease. Note: The
CC sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

ABB25656 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

101 AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

151 SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID AAM75738 standard; protein; 185 AA.
XX
AC AAM75738;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human bone marrow expressed probe encoded protein SEQ ID NO: 36044.
XX
KW Human; bone marrow expressed exon; gene expression analysis; probe;
KW microarray; cancer; leukaemia; lymphoma; myeloma.
XX
OS Homo sapiens.
XX
PN WO200157276-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000668.

XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488900/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human bone marrow.
XX
PS Example 4; SEQ ID NO 36044; 658pp + Sequence Listing; English.
XX
CC The present invention provides a number of single exon nucleic acid
CC probes which are derived from genomic sequences expressed in the human
CC bone marrow. They can be used to measure gene expression in bone marrow
CC samples, which may enable the improved diagnosis and treatment of cancers
CC such as lymphoma, leukaemia and myeloma. The present sequence is a
CC protein encoded by one of the probes of the invention
XX
SQ Sequence 185 AA;

AAM75738 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

101 AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

151 SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID AAU65531 standard; protein; 771 AA.
XX
AC AAU65531;
XX
DT 27-FEB-2002 (first entry)
XX
DE Propionibacterium acnes immunogenic protein #26427.
XX
KW SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis;
KW uveitis; endophthalmitis; bone; joint; central nervous system; ELISA;
KW inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay;
KW dermatological; osteopathic; neuroprotectant.
XX
OS Propionibacterium acnes.
XX
PN WO200181581-A2.
XX
PD 01-NOV-2001.
XX
PF 20-APR-2001; 2001WO-US012865.
XX
PR 21-APR-2000; 2000US-0199047P.
PR 02-JUN-2000; 2000US-0208841P.
PR 07-JUL-2000; 2000US-0216747P.
XX
PA (CORI-) CORIXA CORP.
XX
PI Skeiky YAW, Persing DH, Mitcham JL, Wang SS, Bhatia A;
PI L'maisonneuve J, Zhang Y, Jen S, Carter D;
XX
DR WPI; 2001-616774/71.
DR N-PSDB; AAS59673.
XX
PT Propionibacterium acnes polypeptides and nucleic acids useful for
PT vaccinating against and diagnosing infections, especially useful for
PT treating acne vulgaris.
XX
PS Example 1; SEQ ID NO 26726; 1069pp; English.
XX
CC Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic
CC polypeptides. The proteins and their associated DNA sequences are used in
CC the treatment, prevention and diagnosis of medical conditions caused by
CC P. acnes. The disorders include SAPHO syndrome (synovitis, acne,
CC pustulosis, hypertosis and osteomyelitis), uveitis and endophthalmitis.
CC P. acnes is also involved in infections of bone, joints and the central
CC nervous system, however it is particularly involved in the inflammatory
CC lesions associated with acne vulgaris. A method for detecting the
CC presence or absence of P. acnes in a patient comprises contacting a
CC sample with a binding agent that binds to the proteins of the invention
CC and determining the amount of bound protein in the sample. The
CC polypeptides may be used as antigens in the production of antibodies
CC specific for P. acnes proteins. These antibodies can be used to
CC downregulate expression and activity of P. acnes polypeptides and
CC therefore treat P. acnes infections. The antibodies may also be used as
CC diagnostic agents for determining P. acnes presence, for example, by
CC enzyme linked immunosorbent assay (ELISA). Note: The sequence data for
CC this patent did not form part of the printed specification, but was
CC obtained in electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 771 AA;

AAU65531 Length: 771 May 13, 2004 16:42 Type: P Check: 718 ..

1 VDAYITPDRA QLYVAMGAAL TSTSEPVDLA ETAKRSRHAR TQNGISQSMP

51 PLFRSEEELD EFNRRHSHAK LPRLPLHDAR GSLFLGIDAG STTIKSVLID

101 ESLNIVASHY ASNEGDPVSA AVQILADLYD AMPAEATIAR TCTTGYGEGL

151 VKAALEAEDG EVETMAHYRA ADHLLPGVTA IIDIGGQDMK YLRVVDQVID

201 SISVNEACSS GCGSFLQTFA AGMDTDIESF SSMSLLAQHP VDLGSRCTVF

251 MNSSVKQAQK EGASPADIAA GLSYSVVRNA LYKVIKLTDP AQLGNKVVVQ

301 GGTFLNNAVL RAFEKLTGRE VVRPAEAGLM GAYGAALTAH ARFHAGEPTT

351 SEGLRERAEL DGFAVETHRD DCALCQNHCQ RTIATFSDGR VFVSGNRCDR

401 GAEVNNRKMA KLPKSELPNV FEDKYKRLFS YRRLTAKKAF RGDLGLPRAL

451 NMYENYPFWF TTLSALGYRV MISGRSSHAL FEKGMESIAS ENICYPAKLN

501 NGHVEDLVQR GVKRIFDPCI RYEQVSVADA DAHFNCPVVA SYPEVIRANV

551 ESLRDKDVEL ISPFLSLADP DKLAERLAEV FADDDVTVDE ARRAIAKGLE

601 EDKAFHDEIR KMGEDALAYM XEHNXPGIVL AGRPYHVDPE IHHGIPEMVN

651 SLGMAVLTED RWPSGSDLLE RPLRVRDQWM FHSRLYQAAA FVGSRPDLEL

701 VQLNSFGCGL DAITTDQVRE ILAARDRIYT TLKIDEVSNL GAARIRMRSL

751 QAASKERASH NRKLVTHPFI G

!!AA_SEQUENCE 1.0
ID AAG64262 standard; protein; 233 AA.
XX
AC AAG64262;
XX
DT 21-SEP-2001 (first entry)
XX
DE Human Bcl-XL protein: SEQ ID 10.
XX
KW BH4 domain; cardiant; anti-HIV; neuroprotective; hepatotropic; Bcl-2;

KW antidiabetic; apoptosis inhibitor; cellular uptake; anti-apoptosis;
KW ischaemic disease; myocardial infarct; AIDS; neurodegenerative diseases;
KW infective multiple failure; fulminant hepatitis; diabetes; human; Bcl-XL.
XX
OS Homo sapiens.
XX
PN WO200148014-A1.
XX
PD 05-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-JP009274.
XX
PR 27-DEC-1999; 99JP-00371449.
XX
PA (SHIO) SHIONOGI & CO LTD.
XX
PI Shimizu S, Tsujimoto Y;
XX
DR WPI; 2001-418246/44.
XX
PT BH4-fused polypeptides with peptide sequences capable of exerting effect
PT on enabling uptake into cells, applicable as effective apoptosis
PT inhibitors, useful in preventives or remedies for ischemic diseases e.g.
PT myocardial infarct.
XX
PS Disclosure; Page 63-64; 84pp; Japanese.
XX
CC The present invention relates to BH4-fused polypeptides. The BH4-fused
CC polypeptide have a sequence capable of affecting cellular uptake and also
CC a BH4 domain sequence from an anti-apoptosis Bcl-2 family protein. The
CC BH4-fused polypeptides are useful as effective apoptosis inhibitors, and
CC are useful in preventives or remedies for ischaemic diseases e.g.
CC myocardial infarct, AIDS, neurodegenerative diseases, infective multiple
CC failure, fulminant hepatitis and diabetes. The present protein was used
CC in the present invention
XX
SQ Sequence 233 AA;

AAG64262 Length: 233 May 13, 2004 16:42 Type: P Check: 5340 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATA HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID AAG64285 standard; protein; 212 AA.
XX
AC AAG64285;
XX
DT 21-SEP-2001 (first entry)
XX
DE Mutant bcl-XL protein sequence.
XX
KW BH4 domain; cardiant; anti-HIV; neuroprotective; hepatotropic; Bcl-2;
KW antidiabetic; apoptosis inhibitor; cellular uptake; anti-apoptosis;
KW ischaemic disease; myocardial infarct; AIDS; neurodegenerative diseases;
KW infective multiple failure; fulminant hepatitis; diabetes; mutant;
KW Bcl-XL; mutein.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200148014-A1.
XX
PD 05-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-JP009274.
XX
PR 27-DEC-1999; 99JP-00371449.
XX
PA (SHIO) SHIONOGI & CO LTD.
XX
PI Shimizu S, Tsujimoto Y;
XX
DR WPI; 2001-418246/44.
DR N-PSDB; AAH48169.
XX
PT BH4-fused polypeptides with peptide sequences capable of exerting effect
PT on enabling uptake into cells, applicable as effective apoptosis
PT inhibitors, useful in preventives or remedies for ischemic diseases e.g.
PT myocardial infarct.
XX
PS Disclosure; Page 66-68; 84pp; Japanese.
XX
CC The present invention relates to BH4-fused polypeptides. The BH4-fused
CC polypeptide have a sequence capable of affecting cellular uptake and also
CC a BH4 domain sequence from an anti-apoptosis Bcl-2 family protein. The
CC BH4-fused polypeptides are useful as effective apoptosis inhibitors, and
CC are useful in preventives or remedies for ischaemic diseases e.g.
CC myocardial infarct, AIDS, neurodegenerative diseases, infective multiple
CC failure, fulminant hepatitis and diabetes. The present sequence is a
CC mutant bcl-XL protein which was used in the present invention. The coding
CC sequence for this protein was derived from a human bcl-XL DNA sequence
XX
SQ Sequence 212 AA;

AAG64285 Length: 212 May 13, 2004 16:42 Type: P Check: 4573 ..

1 MSWSQFSDVE ENRTEAPEGT ESEMETPSAI NGNPSWHLAD SPAVNGATAH

51 SSSLDAREVI PMAAVKQALR EAGDEFELRY RRAFSDLTSQ LHITPGTAYQ

101 SFEQVVNELF RDGVNWGRIV AFFSFGGALC VESVDKEMQV LVSRIAAWMA

151 TYLNDHLEPW IQENGGWDTF VELYGNNAAA ESRKGQERFN RWFLTGMTVA

201 GVVLLGSLFS RK

!!AA_SEQUENCE 1.0
ID AAM62926 standard; protein; 185 AA.
XX
AC AAM62926;
XX
DT 05-NOV-2001 (first entry)
XX
DE Human brain expressed single exon probe encoded protein SEQ ID NO: 35031.
XX
KW Human; brain expressed exon; gene expression analysis; probe; microarray;
KW Alzheimer's disease; multiple sclerosis; schizophrenia; epilepsy; cancer.
XX
OS Homo sapiens.
XX
PN WO200157275-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000667.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX

DR WPI; 2001-483446/52.
XX
PT Single exon nucleic acid probes for analyzing gene expression in human
PT brains.
XX
PS Example 4; SEQ ID NO 35031; 650pp + Sequence Listing; English.
XX
CC The present invention provides a number of single exon nucleic acid
CC probes which are derived from genomic sequences expressed in the human
CC brain. They can be used to measure gene expression in brain cell samples,
CC which may enable the diagnosis and improved treatment of nervous system
CC diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
CC epilepsy and cancers. The present sequence is a protein encoded by one of
CC the probes of the invention
XX
SQ Sequence 185 AA;

AAM62926 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

101 AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

151 SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID ABG57476 standard; peptide; 185 AA.
XX
AC ABG57476;
XX
DT 25-FEB-2003 (first entry)
XX
DE Human liver peptide, SEQ ID No 36124.
XX
KW Human; liver; cirrhosis; hyperlipoproteinaemia; hyperlipidaemia;
KW hypercholesterolaemia; coronary heart disease.
XX
OS Homo sapiens.
XX
PN WO200157273-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000664.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488898/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human adult liver.
XX
PS Claim 27; SEQ ID NO 36124; 658pp; English.
XX
CC The invention relates to a single exon nucleic acid probe (SENP) (I) for
CC measuring human gene expression in a sample derived from human adult
CC liver, comprising one of 13109 defined nucleotide sequences given in the
CC specification (or complements/ fragments). The probe hybridises at high
CC stringency to a nucleic acid molecule expressed in the human adult liver.
CC (I) may be used for predicting, measuring and displaying gene expression
CC in samples derived from human adult liver. The genes identified may be
CC involved in genetic liver diseases such as cirrhosis,
CC hyperlipoproteinaemia, hyperlipidaemia and hypercholesterolaemia which is
CC associated with coronary heart disease. ABG47348-ABG59930 represent human
CC liver single exon encoded peptides of the invention. Note: The sequence
CC information for this patent does not appear in the printed specification
CC but was obtained in electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

ABG57476 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

101 AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

151 SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID AAB47515 standard; protein; 233 AA.
XX
AC AAB47515;
XX
DT 04-DEC-2001 (first entry)
XX
DE Protein encoded by cDNA clone HP03564 ORF.
XX
KW Npw38; NpwBP; protein interaction; reporter function; eukaryotic cell;
KW localization; protein network; intracellular; primer; amplify; PCR;
KW polymerase chain reaction; mitochondria.
XX
OS Homo sapiens.
XX
PN WO200168885-A1.
XX
PD 20-SEP-2001.
XX
PF 13-MAR-2001; 2001WO-JP001973.
XX
PR 15-MAR-2000; 2000JP-00073095.
PR 24-AUG-2000; 2000JP-00254418.
XX
PA (NISC-) JAPAN SCI & TECHNOLOGY CORP.
XX
PI Kato S, Eguchi C, Nagata N, Otake M;
XX
DR WPI; 2001-590069/66.
DR N-PSDB; AAH43464.
XX
PT Detection of protein-protein interactions for screening compounds capable
PT of modifying the interaction comprises observing intracellular
PT localization of one protein after altering the modification pattern.
XX
PS Example 6; Page 27-29; 33pp; Japanese.
XX
CC This sequence is encoded by the open reading frame of the mitochondrial
CC cDNA clone HP03564. This protein sequence was used in the method of the
CC invention. The method allows detection of interactions between a protein
CC X and a protein Y which has a reporter function in eukaryotic cells, and
CC comprises modifying the localization patterns of X and/or Y, and the
CC localization of Y in the cell is observed using the reporter function.
CC This method is useful for the elucidation of protein networks within the
CC cell. It is also applicable for the discovery of new proteins and low-
CC molecular drugs, by observing their effect on intracellular protein
CC interactions
XX
SQ Sequence 233 AA;

AAB47515 Length: 233 May 13, 2004 16:42 Type: P Check: 5340 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

```
     51  INGNPSWHLA DSPAVNGATA HSSSLDAREV IPMAAVKQAL REAGDEFELR

    101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

    151  CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

    201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   AAU00222 standard; protein; 485 AA.
XX
AC   AAU00222;
XX
DT   31-MAY-2001  (first entry)
XX
DE   LFn-Bcl-XL apoptosis-modifying fusion protein.
XX
KW   Human; LFn-Bcl-XL; apoptosis; cancer; spinal muscular atrophy;
KW   anthrax lethal factor; neoplasm; tumour; hyper-proliferation;
KW   Alzheimer's disease; neurodegenerative disorder; stroke;
KW   transient ischaemic neuronal injury; spinal cord injury;
KW   Huntington's disease.
XX
OS   Homo sapiens.
OS   Corynebacterium; diptheriae.
OS   Synthetic.
OS   Chimeric.
XX
FH   Key             Location/Qualifiers
FT   Region          5. .10
FT                   /note= "6x histidine tag"
FT   Region          21. .276
FT                   /note= "Anthrax lethal factor amino acids 1 to 255"
FT   Region          277. .485
FT                   /note= "Bcl-XL amino acids 1 to 209"
XX
PN   WO200112661-A2.
XX
PD   22-FEB-2001.
XX
PF   15-AUG-2000; 2000WO-US022293.
XX
PR   16-AUG-1999;   99US-0149220P.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Youle RJ,  Liu X,  Collier RJ;
XX
DR   WPI; 2001-218343/22.
DR   N-PSDB; AAS00250.
XX
PT   Novel fusion protein for modifying apoptosis in target cell and reducing
PT   apoptosis after transient ischemic neuronal injury, has two domains which
PT   targets protein to a cell and modifies apoptotic response of cell.
XX
PS   Claim 4; Page 64-65; 65pp; English.
XX
CC   The sequence represents the amino acid sequence of LFn-Bcl-XL apoptosis-
CC   modifying fusion protein comprising anthrax lethal factor (LF) sequence
CC   fused to Bcl-XL. The functional apoptosis-modifying fusion protein is
CC   capable of binding a target cell and integrating into or crossing a
CC   cellular membrane of the target cell. The apoptosis-modifying fusion
CC   protein comprises at least two domains: the DTR domain, which targets the
CC   fusion protein to the target cell and the Bcl-XL domain, which modifies
CC   an apoptotic response of the target cell. The fusion protein is useful
CC   for modifying (inhibiting or enhancing) apoptosis in a target cell, such
CC   as neuron, lymphocyte, cancer, neoplasm, macrophage, epithelial, stem,
CC   tumour or hyper-proliferative cell or an adipocyte. It is also useful for
CC   reducing apoptosis in a subject after transient ischaemic neuronal
CC   injury, especially spinal cord injury. The fusion protein may be used to
CC   treat various diseases and injury conditions through inhibition or
CC   enhancement of apoptotic cellular response, including neurodegenerative
CC   disorders such as Alzheimer's disease, Huntington's disease, spinal
CC   muscular atrophy, stroke episodes and unregulated cell growth as in
CC   tumours and various cancers. The apoptosis- modifying fusion protein can
CC   be delivered effectively throughout the body and targeted to selective
CC   tissue and cells
XX
SQ   Sequence 485 AA;

  AAU00222  Length: 485  May 13, 2004 16:42  Type: P  Check: 7999  ..

       1  MGSSHHHHHH SSGLVPRGSH MAGGHGDVGM HVKEKEKNKD ENKRKDEERN

      51  KTQEEHLKEI MKHIVKIEVK GEEAVKKEAA EKLLEKVPSD VLEMYKAIGG

     101  KIYIVDGDIT KHISLEALSE DKKKIKDIYG KDALLHEHYV YAKEGYEPVL

     151  VIQSSEDYVE NTEKALNVYY EIGKILSRDI LSKINQPYQK FLDVLNTIKN

     201  ASDSDGQDLL FTNQLKEHPT DFSVEFLEQN SNEVQEVFAK AFAYYIEPQH

     251  RDVLQLYAPE AFNYMDKFNE QEINLSMSQS NRELVVDFLS YKLSQKGYSW

     301  SQFSDVEENR TEAPEGTESE METPSAINGN PSWHLADSPA VNGATAHSSS

     351  LDAREVIPMA AVKQALREAG DEFELRYRRA FSDLTSQLHI TPGTAYQSFE

     401  QVVNELFRDG VNWGRIVAFF SFGGALCVES VDKEMQVLVS RIAAWMATYL

     451  NDHLEPWIQE NGGWDTFVEL YGNNAAAESR KGQER

!!AA_SEQUENCE 1.0
ID   AAU00219 standard; protein; 411 AA.
XX
AC   AAU00219;
XX
DT   31-MAY-2001  (first entry)
XX
DE   Bcl-Xl-DTR apoptosis-modifying fusion protein.
XX
KW   Human; Bcl-Xl-DTR; apoptosis; cancer; spinal muscular atrophy;
KW   diphtheria toxin receptor binding domain; DTR; neoplasm; tumour;
KW   hyper-proliferation; Alzheimer's disease; neurodegenerative disorder;
KW   transient ischaemic neuronal injury; stroke; spinal cord injury;
KW   Huntington's disease.
XX
OS   Homo sapiens.
OS   Corynebacterium; diptheriae.
OS   Synthetic.
OS   Chimeric.
XX
FH   Key             Location/Qualifiers
FT   Region          3. .12
FT                   /note= "10x histidine tag"
FT   Domain          21. .253
FT                   /note= "Bcl-Xl amino acids 1 to 233"
FT   Region          254. .259
FT                   /note= "Linker amino acids, linking Bcl-Xl to diphtheria
FT                   toxin receptor binding domain (DTR)"
FT   Domain          260. .411
FT                   /note= "DTR, diphtheria toxin receptor binding domain"
XX
PN   WO200112661-A2.
XX
PD   22-FEB-2001.
XX
PF   15-AUG-2000; 2000WO-US022293.
XX
PR   16-AUG-1999;   99US-0149220P.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
```

PI Youle RJ, Liu X, Collier RJ;
XX
DR WPI; 2001-218343/22.
DR N-PSDB; AAS00247.
XX
PT Novel fusion protein for modifying apoptosis in target cell and reducing
PT apoptosis after transient ischemic neuronal injury, has two domains which
PT targets protein to a cell and modifies apoptotic response of cell.
XX
PS Claim 4; Page 56-57; 65pp; English.
XX
CC The sequence represents the amino acid sequence of Bcl-Xl-DTR apoptosis-
CC modifying fusion protein comprising Bcl-Xl sequence fused via a short
CC linker to diphtheria toxin receptor binding domain (DTR). The functional
CC apoptosis-modifying fusion protein is capable of binding a target cell
CC and integrating into or crossing a cellular membrane of the target cell.
CC comprising at least two domains, one of which targets the fusion protein
CC to the target cell and another of which modifies an apoptotic response of
CC the target cell. The fusion protein is useful for modifying (inhibiting
CC or enhancing) apoptosis in a target cell, such as neuron, lymphocyte,
CC cancer, neoplasm, macrophage, epithelial, stem, tumour or hyper-
CC proliferative cell or an adipocyte. It is also useful for reducing
CC apoptosis in a subject after transient ischaemic neuronal injury,
CC especially spinal cord injury. The fusion protein may be used to treat
CC various diseases and injury conditions through inhibition or enhancement
CC of apoptotic cellular response, including neurodegenerative disorders
CC such as Alzheimer's disease, Huntington's disease, spinal muscular
CC atrophy, stroke episodes and unregulated cell growth as in tumours and
CC various cancers. The apoptosis-modifying fusion protein can be delivered
CC effectively throughout the body and targeted to selective tissue and
CC cells
XX
SQ Sequence 411 AA;

AAU00219 Length: 411 May 13, 2004 16:42 Type: P Check: 7903 ..

1 MGHHHHHHHH HHSSGHIEGR MSQSNRELVV DFLSYKLSQK GYSWSQFSDV

51 EENRTEAPEG TESEMETPSA INGNPSWHLA DSPAVNGATA HSSSLDAREV

101 IPMAAVKQAL REAGDEFELR YRRAFSDLTS QLHITPGTAY QSFEQVVNEL

151 FRDGVNWGRI VAFFSFGGAL CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP

201 WIQENGGWDT FVELYGNNAA AESRKGQERF NRWFLTGMTV AGVVLLGSLF

251 SRKAYSAAAH KTQPFLHDGY AVSWNTVEDS IIRTGFQGES GHDIKITAEN

301 TPLPIAGVLL PTIPGKLDVN KSKTHISVNG RKIRMRCRAI DGDVTFCRPK

351 SPVYVGNGVH ANLHVAFHRS SSEKIHSNEI SSDSIGVLGY QKTVDHTKVN

401 SKLSLFFEIK S

!!AA_SEQUENCE 1.0
ID ABG45220 standard; peptide; 185 AA.
XX
AC ABG45220;
XX
DT 19-AUG-2002 (first entry)
XX
DE Human peptide encoded by genome-derived single exon probe SEQ ID 34885.
XX
KW Human; single exon probe; asthma; lung cancer; COPD; ILD;
KW chronic obstructive pulmonary disease; interstitial lung disease;
KW familial idiopathic pulmonary fibrosis; neurofibromatosis;
KW tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
KW Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
KW pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome;
KW pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
KW primary ciliary dyskinesis; pulmonary hypertension;
KW hyaline membrane disease.
XX
OS Homo sapiens.
XX
PN WO200186003-A2.
XX
PD 15-NOV-2001.
XX
PF 30-JAN-2001; 2001WO-US000665.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2002-114183/15.
XX
PT Spatially-addressable set of single exon nucleic acid probes, used to
PT measure gene expression in human lung samples.
XX
PS Claim 27; SEQ ID NO 34885; 634pp; English.
XX
CC The invention relates to a spatially-addressable set of single exon
CC nucleic acid probes for measuring gene expression in a sample derived
CC from human lung comprising single exon nucleic acid probes having one of
CC 12614 nucleic acid sequences mentioned in the specification, or their
CC complements or the 12387 open reading frames derived from the 12614
CC probes. Also included are a microarray comprising the novel set of probes
CC ; the novel set of probes which hybridise at high stringency to a nucleic
CC acid expressed in the human lung; measuring gene expression in a sample
CC derived from human lung, comprising (a) contacting the array with a
CC collection of detectably labeled nucleic acids derived from human lung
CC mRNA, and (b) measuring the label detectably bound to each probe of the
CC array; identifying exons in a eukaryotic genome, comprising (a)
CC algorithmically predicting at least one exon from genomic sequences of
CC the eukaryote; and (b) detecting specific hybridisation of detectably
CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
CC having a fragment identical to the predicted exon, the probe is included
CC in the above mentioned microarray; assigning exons to a single gene,
CC comprising (a) identifying exons from genomic sequence by the method
CC above and (b) measuring the expression of each of the exons in several
CC tissues and/or cell types using hybridisation to a single exon
CC microarrays having a probe with the exon, where a common pattern of
CC expression of the exons in the tissues and/or cell types indicates that
CC the exons should be assigned to a single gene; a peptide comprising one
CC of 12011 sequences, mentioned in the specification, or encoded by the
CC probes/open reading frames (ORF). The probes are used for gene expression
CC analysis, and for identifying exons in a gene, particularly using human
CC lung derived mRNA and for the study of lung diseases such as asthma, lung
CC cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
CC disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
CC tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
CC Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
CC histiocytosis, lymphangioleiomyomtosis, pulmonary alveolar proteinosis,
CC Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary
CC dyskinesis, pulmonary hypertension and hyaline membrane disease. The
CC present sequence is a peptide/protein encoded by a single exon probe of
CC the invention. Note: The sequence data for this patent did not form part
CC of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

ABG45220 Length: 185 May 13, 2004 16:42 Type: P Check: 5976 ..

1 SNRELVVDFL SYKLSQKGYS WSQFSDVEEN RTEAPEGTES EMETPSAING

51 NPSWHLADSP AVNGATGHSS SLDAREVIPM AAVKQALREA GDEFELRYRR

```
     101  AFSDLTSQLH ITPGTAYQSF EQVVNELFRD GVNWGRIVAF FSFGGALCVE

     151  SVDKEMQVLV SRIAAWMATY LNDHLEPWIQ ENGGW

!!AA_SEQUENCE 1.0
ID   ABG78480 standard; protein; 237 AA.
XX
AC   ABG78480;
XX
DT   15-NOV-2002  (first entry)
XX
DE   Wild type Bclxl protein.
XX
KW   Human; Bcl2; BclXl; programmed cell death; apoptosis; mutant; mutein.
XX
OS   Homo sapiens.
XX
PN   WO200240530-A2.
XX
PD   23-MAY-2002.
XX
PF   15-NOV-2001; 2001WO-US045693.
XX
PR   20-NOV-2000; 2000US-00716395.
XX
PA   (ABBO ) ABBOTT LAB.
XX
PI   Fesik SW,  Petros AM,  Yoon H,  Nettesheim DG;
XX
DR   WPI; 2002-490141/52.
XX
PT   New mutant Bcl-2 proteins derived from a wild type human Bcl-2 protein,
PT   useful in biological assays to identify substances that block the ability
PT   of Bcl-2 to inhibit programmed cell death or apoptosis.
XX
PS   Disclosure; Fig 1; 36pp; English.
XX
CC   This invention relates to a novel mutant protein which is derived from a
CC   wild type human Bcl-2 protein. The mutant is created by replacing a
CC   sequence of amino acid residues comprising a flexible loop from the wild
CC   type Bcl-2 protein with an amino acid sequence comprising at least two
CC   acidic amino acids. The mutant Bcl-2 protein comprises a 166 residue
CC   shown in the specification. The invention also comprises an assay for
CC   identifying substances that bind to the Bcl-2 protein. The protein
CC   sequences of the invention are useful in biological assays to identify
CC   substances that block the ability of Bcl-2 to inhibit programmed cell
CC   death or apoptosis. The present sequence represents a human Bcl2 mutant
CC   protein used in the invention
XX
SQ   Sequence 237 AA;

  ABG78480  Length: 237  May 13, 2004 16:42  Type: P  Check: 7190  ..

       1  MSMAMSQSNR ELVVDFLSYK LSQKGYSWSQ FSDVEENRTE APEETESEME

      51  TPSAINGNPS WHLADSPAVN GATGHSSSLD AREVIPMAAV KQALREAGDE

     101  FELRYRRAFS DLTSQLHITP GTAYQSFEQV VNELFRDGVN WGRIVAFFSF

     151  GGALCVESVD KEMQVLVSRI AAWMATYLND HLEPWIQENG GWDTFVELYG

     201  NNAAAESRKG QERFNRWFLT GMTVAGVVLL GSLFSRK

!!AA_SEQUENCE 1.0
ID   ABG95556 standard; protein; 365 AA.
XX
AC   ABG95556;
XX
DT   15-JAN-2003  (first entry)
XX
DE   Human novel secreted protein gene 120 polypeptide #1.
XX
KW   Human; secreted protein; autoimmune disease; chemotaxis;
KW   rheumatoid arthritis; hyperproliferative disorder; breast neoplasm;
KW   liver neoplasm cardiovascular disorder; cardiac arrest; skin aging;
KW   cerebrovascular disorder; cerebral ischaemia; angiogenesis; sunburn;
KW   nervous system disorders; Alzheimer's disease; infection;
KW   ocular disorder; corneal infection; wound healing; tissue regeneration;
KW   epithelial cell proliferation; organ transplantation; food additive;
KW   preservative; nutritional.
XX
OS   Homo sapiens.
XX
PN   US6420526-B1.
XX
PD   16-JUL-2002.
XX
PF   08-SEP-1998;   98US-00149476.
XX
PR   07-MAR-1997;   97US-0038621P.
PR   07-MAR-1997;   97US-0040161P.
PR   07-MAR-1997;   97US-0040162P.
PR   07-MAR-1997;   97US-0040163P.
PR   07-MAR-1997;   97US-0040333P.
PR   07-MAR-1997;   97US-0040334P.
PR   07-MAR-1997;   97US-0040336P.
PR   07-MAR-1997;   97US-0040626P.
PR   11-APR-1997;   97US-0043311P.
PR   11-APR-1997;   97US-0043312P.
PR   11-APR-1997;   97US-0043313P.
PR   11-APR-1997;   97US-0043314P.
PR   11-APR-1997;   97US-0043315P.
PR   11-APR-1997;   97US-0043568P.
PR   11-APR-1997;   97US-0043569P.
PR   11-APR-1997;   97US-0043576P.
PR   11-APR-1997;   97US-0043578P.
PR   11-APR-1997;   97US-0043580P.
PR   11-APR-1997;   97US-0043669P.
PR   11-APR-1997;   97US-0043670P.
PR   11-APR-1997;   97US-0043671P.
PR   11-APR-1997;   97US-0043672P.
PR   11-APR-1997;   97US-0043674P.
PR   23-MAY-1997;   97US-0047492P.
PR   23-MAY-1997;   97US-0047500P.
PR   23-MAY-1997;   97US-0047501P.
PR   23-MAY-1997;   97US-0047502P.
PR   23-MAY-1997;   97US-0047503P.
PR   23-MAY-1997;   97US-0047581P.
PR   23-MAY-1997;   97US-0047582P.
PR   23-MAY-1997;   97US-0047583P.
PR   23-MAY-1997;   97US-0047584P.
PR   23-MAY-1997;   97US-0047585P.
PR   23-MAY-1997;   97US-0047586P.
PR   23-MAY-1997;   97US-0047587P.
PR   23-MAY-1997;   97US-0047588P.
PR   23-MAY-1997;   97US-0047589P.
PR   23-MAY-1997;   97US-0047590P.
PR   23-MAY-1997;   97US-0047592P.
PR   23-MAY-1997;   97US-0047593P.
PR   23-MAY-1997;   97US-0047594P.
PR   23-MAY-1997;   97US-0047595P.
PR   23-MAY-1997;   97US-0047596P.
PR   23-MAY-1997;   97US-0047597P.
PR   23-MAY-1997;   97US-0047598P.
PR   23-MAY-1997;   97US-0047599P.
PR   23-MAY-1997;   97US-0047600P.
PR   23-MAY-1997;   97US-0047601P.
PR   23-MAY-1997;   97US-0047612P.
PR   23-MAY-1997;   97US-0047613P.
PR   23-MAY-1997;   97US-0047614P.
PR   23-MAY-1997;   97US-0047615P.
PR   23-MAY-1997;   97US-0047617P.
PR   23-MAY-1997;   97US-0047618P.
PR   23-MAY-1997;   97US-0047632P.
PR   23-MAY-1997;   97US-0047633P.
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PR 06-JUN-1997; 97US-0048964P.
PR 06-JUN-1997; 97US-0048974P.
PR 13-JUN-1997; 97US-0049610P.
PR 08-JUL-1997; 97US-0051926P.
PR 16-JUL-1997; 97US-0052874P.
PR 18-AUG-1997; 97US-0055724P.
PR 22-AUG-1997; 97US-0056630P.
PR 22-AUG-1997; 97US-0056631P.
PR 22-AUG-1997; 97US-0056632P.
PR 22-AUG-1997; 97US-0056636P.
PR 22-AUG-1997; 97US-0056637P.
PR 22-AUG-1997; 97US-0056662P.
PR 22-AUG-1997; 97US-0056664P.
PR 22-AUG-1997; 97US-0056845P.
PR 22-AUG-1997; 97US-0056862P.
PR 22-AUG-1997; 97US-0056864P.
PR 22-AUG-1997; 97US-0056872P.
PR 22-AUG-1997; 97US-0056874P.
PR 22-AUG-1997; 97US-0056875P.
PR 22-AUG-1997; 97US-0056876P.
PR 22-AUG-1997; 97US-0056877P.
PR 22-AUG-1997; 97US-0056878P.
PR 22-AUG-1997; 97US-0056879P.
PR 22-AUG-1997; 97US-0056880P.
PR 22-AUG-1997; 97US-0056881P.
PR 22-AUG-1997; 97US-0056882P.
PR 22-AUG-1997; 97US-0056884P.
PR 22-AUG-1997; 97US-0056886P.
PR 22-AUG-1997; 97US-0056887P.
PR 22-AUG-1997; 97US-0056888P.
PR 22-AUG-1997; 97US-0056889P.
PR 22-AUG-1997; 97US-0056892P.
PR 22-AUG-1997; 97US-0056893P.
PR 22-AUG-1997; 97US-0056894P.
PR 22-AUG-1997; 97US-0056903P.
PR 22-AUG-1997; 97US-0056908P.
PR 22-AUG-1997; 97US-0056909P.
PR 22-AUG-1997; 97US-0056910P.
PR 22-AUG-1997; 97US-0056911P.
PR 05-SEP-1997; 97US-0057650P.
PR 05-SEP-1997; 97US-0057669P.
PR 05-SEP-1997; 97US-0057761P.
PR 12-SEP-1997; 97US-0058785P.
PR 02-OCT-1997; 97US-0061060P.
PR 06-MAR-1998; 98WO-US004493.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Ruben SM, Rosen CA, Fischer CL, Soppet DP, Carter KC;
PI Bednarik DR, Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM;
PI Ferrie AM, Duan R, Hu J, Florence KA, Olsen HS, Ebner R, Brewer LA;
PI Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
XX
DR WPI; 2002-634796/68.
XX
PT New isolated human secreted protein for diagnosing, preventing, treating
PT or ameliorating medical conditions and used as a food additive or
PT preservative.
XX
PS Disclosure; Col 103; 129pp; English.
XX
CC The invention relates to an isolated protein that is one of 186 human
CC secreted proteins, given in the specification, encoded by one of 309 cDNA
CC sequences also given in the specification. The protein is used in a
CC pharmaceutical composition used to prevent, treat or ameliorate a medical
CC condition in e.g. humans, mice, rabbits, goats, horses, cats, dogs,
CC chickens or sheep. Disorders which are diagnosed or treated include
CC autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative
CC disorders e.g. neoplasms of the breast or liver, cardiovascular disorders
CC e.g. cardiac arrest, cerebrovascular disorders e.g. cerebral ischaemia,
CC angiogenesis, nervous system disorders e.g. Alzheimer's disease,
CC infections caused by bacteria, viruses and fungi and ocular disorders
CC e.g. corneal infection. The polypeptides can also be used to aid wound
CC healing and epithelial cell proliferation, to prevent skin aging due to
CC sunburn, to maintain organs before transplantation, for supporting cell
CC culture of primary tissues, to regenerate tissues and in chemotaxis. The
CC polypeptides can also be used as a food additive or preservative to
CC increase or decrease storage capabilities, fat content, lipid, protein,
CC carbohydrate, vitamins, minerals, cofactors and other nutritional
CC components. The present sequence represents one of the novel human
CC secreted proteins of the invention
XX
SQ Sequence 365 AA;

ABG95556 Length: 365 May 13, 2004 16:42 Type: P Check: 9605 ..

1 MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWLSQITE

151 AEMADEVICS EILSDCDSAA SSPDLEELEA IKARVREMEE EAEKLKELQN

201 EVEKQMNMSP PPGNAGPVIM SIEEKMEADA RSIYVGNVDY GATAEELEAH

251 FHGCGSVNRV TILCDKFSGH PKGFAYIEFS DKESVRTSLA LDESLFRGRQ

301 IKVIPKRTNR PGISTTDRGF PRARYRARTT NYNSSRSRFY SGFNSRPRGR

351 VYRGRARATS WYSPY

!!AA_SEQUENCE 1.0
ID AAE37656 standard; protein; 170 AA.
XX
AC AAE37656;
XX
DT 27-AUG-2003 (first entry)
XX
DE Bcl2 related protein #7.
XX
KW Bcl2 related protein; growth; protein expression.
XX
OS Unidentified.
XX
PN WO2003040374-A1.
XX
PD 15-MAY-2003.
XX
PF 02-NOV-2001; 2001WO-US045553.
XX
PR 02-NOV-2001; 2001WO-US045553.
XX
PA (CENZ) CENTOCOR INC.
XX
PI Lee C, Ly C, Moore G, Shi X;
XX
DR WPI; 2003-441576/41.
XX
PT New protein expression enhancing Bcl2 related nucleic acid for producing
PT commercially useful amounts of expressed protein, comprises a nucleic
PT acid that encodes an expressible protein or at least one Bcl2 related
PT protein.
XX
PS Disclosure; Page 53-54; 64pp; English.
XX
CC The invention relates to methods and compositions for enhanced protein
CC expression and/or growth of cultured cells using co-transcription of at
CC least one Bcl2 related protein encoding nucleic acid molecules. The
CC invention is useful in providing enhanced growth of and/or protein
CC production from cultured mammalian host cells used for the production of
CC commercially useful amounts of expressed protein. The present sequence is
CC Bcl2 related protein
XX
SQ Sequence 170 AA;

```
AAE37656  Length: 170  May 13, 2004 16:42  Type: P  Check: 4802  ..

     1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

    51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

   101  YRRAFSDLTS QLHITPGTAY QSFEQDTFVE LYGNNAAAES RKGQERFNRW

   151  FLTGMTVAGV VLLGSLFSRK

!!AA_SEQUENCE 1.0
ID   ABM65520 standard; protein; 1480 AA.
XX
AC   ABM65520;
XX
DT   20-OCT-2003  (first entry)
XX
DE   Propionibacterium acnes immunogenic polypeptide #30196.
XX
KW   Acne vulgaris; antiseborrhoeic; dermatological; antibacterial;
KW   immunostimulant; immune response; vaccine; immunogenic.
XX
OS   Propionibacterium acnes.
XX
PN   WO2003033515-A1.
XX
PD   24-APR-2003.
XX
PF   11-OCT-2002; 2002WO-US032727.
XX
PR   15-OCT-2001; 2001US-00978825.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Mitcham JL,  Skeiky YAW,  Persing DH,  Bhatia A,  Maisonneuve JL;
PI   Zhang Y,  Wang S,  Jen S,  Lodes MJ,  Benson DR,  Jones R,  Carter D;
PI   Barth B,  Vallieve-Douglass J;
XX
DR   WPI; 2003-381789/36.
XX
PT   New Propionibacterium acnes polypeptides and polynucleotides encoding the
PT   polypeptide, useful for diagnosing, preventing or treating acne vulgaris,
PT   or for stimulating an immune response specific for a P. acnes protein.
XX
PS   Claim 7; SEQ ID NO 30196; 1481pp; English.
XX
CC   The invention relates to an isolated polynucleotide (ACF64435-ACF64733)
CC   encoding a Propionibacterium acnes protein. The invention also relates to
CC   polypeptides encoded by the polynucleotides (ABM35624-ABM64536) and to
CC   immunogenic fragments of P. acnes polypeptides. The invention
CC   additionally encompasses expression vectors and host cells comprising a
CC   polynucleotide of the invention; antibodies against polypeptides of the
CC   invention; fusion proteins comprising a polypeptide of the invention; a
CC   method for stimulating an immune response specific for a P. acnes
CC   polypeptide and an isolated T cell population comprising T cells prepared
CC   via this method; a vaccine composition (comprising P. acnes polypeptides,
CC   polynucleotides, antibodies, fusion proteins, T cell populations, or
CC   antigen-presenting cells that express the polypeptide); a method and kit
CC   for detecting or determining the presence or absence of P. acnes in a
CC   patient; and a method for inhibiting the development of P. acnes in a
CC   patient. The P. acnes polypeptides, polynucleotides, antibodies, fusion
CC   proteins, T cell populations or antigen-presenting cells that express the
CC   polypeptides are useful for diagnosing, preventing or treating acne
CC   vulgaris, or for stimulating an immune response specific for a P. acnes
CC   protein. The polynucleotides can also be used as probes or primers for
CC   nucleic acid hybridisation. The vaccine composition is useful for the
CC   stimulation of an immune response against P. acnes, or for treating acne,
CC   and the kit is useful for performing a diagnostic assay. The present
CC   sequence represents a specifically claimed P. acnes polypeptide which is
CC   thought to contain an immunogenic region. Note: The sequence data for
CC   this patent did not form part of the printed specification, but was
CC   obtained in electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 1480 AA;

  ABM65520  Length: 1480  May 13, 2004 16:42  Type: P  Check: 8104  ..

     1  NGDMDAHIGN AIPPDAQDLR MGLDVGSTTI KAVILDPDEN ILFEDYRRHH

    51  ADITGAMASL LGDAADALPG TKVRATVTGS AGLGTAEALG LTFIQEVMAE

   101  TAAVQRWNPD ADVLLELGGE DAKITYLKPV PEQRMNGSCA GGTGAFIDQM

   151  ATLLHTDTPG LNDLASRAKT IHPIASRCGV FAKSDLQPLI NEGARHEDLA

   201  ASVLQAVATQ CIAGLACGRP IRGKVIFLGG PLHFMPSLRD AFSRVLDGKV

   251  DAYITPDRAQ LYVAMGAALT STSEPVDLAE TAKRSRHART QNGISQSMPP

   301  LFRSEEELDE FNRRHSHAKL PRLPLHDARG SLFLGIDAGS TTIKSVLIDE

   351  SLNIVASHYA SNEGDPVSAA VQILADLYDA MPAEATIART CTTGYGEGLV

   401  KAALEAEDGE VETMAHYRAA DHLLPGVTAI IDIGGQDMKY LRVVDQVIDS

   451  ISVNEACSSG CGSFLQTFAA GMDTDIESFS SMSLLAQHPV DLGSRCTVFM

   501  NSSVKQAQKE GASPADIAAG LSYSVVRNAL YKVIKLTDPA QLGNKVVVQG

   551  GTFLNNAVLR AFEKLTGREV VRPAEAGLMG AYGAALTAHA RFHAGEPTTS

   601  EGLRERAELD GFAVETHRDD CALCQNHCQR TIATFSDGRV FVSGNRCDRG

   651  AEVNNRKMAK LPKSELPNVF EDKYKRLFSY RRLTAKKAFR GDLGLPRALN

   701  MYENYPFWFT TLSALGYRVM ISGRSSHALF EKGMESIASE NICYPAKLNN

   751  GHVEDLVQRG VKRIFDPCIR YEQVSVADAD AHFNCPVVAS YPEVIRANVE

   801  SLRDKDVELI SPFLSLADPD KLAERLAEVF ADDDVTVDEA RRAIAKGLEE

   851  DKAFHDEIRK MGEDALAYMA EHNVPGIVLA GRPYHVDPEI HHGIPEMVNS

   901  LGMAVLTEDS VAHLGADLLE RPLRVRDQWM FHSRLYQAAA FVGSRPDLEL

   951  VQLNSFGCGL DAITTDQVRE ILAARDRIYT TLKIDEVSNL GAARIRMRSL

  1001  QAASKERASH NRKLVTHPLS DDRVPFTKEM KATHTILVPQ FAPYQTSIAE

  1051  AALRASGYQV EVLKQASREN IDYGLSVVNN DACFPAIVVI GQLVSALKSG

  1101  KYDLDHTTLF LTQTGGMCRA TNYIGLLRKA LKDAGFGNIP VIAASLQGVE

  1151  DNPGFSLTAP LIHRMVQAIT LGDLLQNVHL RTRPYEAVPG SADGLMRRWT

  1201  TIAREHFLNG GHSTTWGRRT SYKTMINSIV DDFEHLELAD GPRKPRVGVL

  1251  GEILVQFHPD ANNHIVETIE SEGCEAVLPG LMWFVYNCLS AGDYNYKTFG

  1301  TDKWSRHVKK AFRALLMQYQ KPVTTALRKS TRFEVPTPIT ELMADAQRIV

  1351  QLGNQAGEGW YLVGEMVDMI REGVPNIAVV QPFACLPNHV TGRGIFREIR

  1401  RQFPQANVVS VDYDPGASQV NQLNRIKLMA ATARDRNVSE ERDAGQAVRP

  1451  EPDEEIPTSP PTASRPDLNG KPVMELSVHL

!!AA_SEQUENCE 1.0
ID   ABM62050 standard; protein; 771 AA.
XX
AC   ABM62050;
XX
DT   20-OCT-2003  (first entry)
XX
DE   Propionibacterium acnes predicted ORF-encoded polypeptide #26726.
```

XX
KW Acne vulgaris; antiseborrhoeic; dermatological; antibacterial;
KW immunostimulant; immune response; vaccine.
XX
OS Propionibacterium acnes.
XX
PN WO2003033515-A1.
XX
PD 24-APR-2003.
XX
PF 11-OCT-2002; 2002WO-US032727.
XX
PR 15-OCT-2001; 2001US-00978825.
XX
PA (CORI-) CORIXA CORP.
XX
PI Mitcham JL, Skeiky YAW, Persing DH, Bhatia A, Maisonneuve JL;
PI Zhang Y, Wang S, Jen S, Lodes MJ, Benson DR, Jones R, Carter D;
PI Barth B, Vallieve-Douglass J;
XX
DR WPI; 2003-381789/36.
DR N-PSDB; ACF64602.
XX
PT New Propionibacterium acnes polypeptides and polynucleotides encoding the
PT polypeptide, useful for diagnosing, preventing or treating acne vulgaris,
PT or for stimulating an immune response specific for a P. acnes protein.
XX
PS Example 1; SEQ ID NO 26726; 1481pp; English.
XX
CC The invention relates to an isolated polynucleotide (ACF64435-ACF64733)
CC encoding a Propionibacterium acnes protein. The invention also relates to
CC polypeptides encoded by the polynucleotides (ABM35624-ABM64536) and to
CC immunogenic fragments of P. acnes polypeptides. The invention
CC additionally encompasses expression vectors and host cells comprising a
CC polynucleotide of the invention; antibodies against polypeptides of the
CC invention; fusion proteins comprising a polypeptide of the invention; a
CC method for stimulating an immune response specific for a P. acnes
CC polypeptide and an isolated T cell population comprising T cells prepared
CC via this method; a vaccine composition (comprising P. acnes polypeptides,
CC polynucleotides, antibodies, fusion proteins, T cell populations, or
CC antigen-presenting cells that express the polypeptide); a method and kit
CC for detecting or determining the presence or absence of P. acnes in a
CC patient; and a method for inhibiting the development of P. acnes in a
CC patient. The P. acnes polypeptides, polynucleotides, antibodies, fusion
CC proteins, T cell populations or antigen-presenting cells that express the
CC polypeptides are useful for diagnosing, preventing or treating acne
CC vulgaris, or for stimulating an immune response specific for a P. acnes
CC protein. The polynucleotides can also be used as probes or primers for
CC nucleic acid hybridisation. The vaccine composition is useful for the
CC stimulation of an immune response against P. acnes, or for treating acne,
CC and the kit is useful for performing a diagnostic assay. The present
CC sequence represents a polypeptide predicted to be encoded by an ORF (open
CC reading frame) contained within the P. acnes polynucleotides of the
CC invention. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 771 AA;

ABM62050 Length: 771 May 13, 2004 16:42 Type: P Check: 718 ..

1 VDAYITPDRA QLYVAMGAAL TSTSEPVDLA ETAKRSRHAR TQNGISQSMP

51 PLFRSEEELD EFNRRHSHAK LPRLPLHDAR GSLFLGIDAG STTIKSVLID

101 ESLNIVASHY ASNEGDPVSA AVQILADLYD AMPAEATIAR TCTTGYGEGL

151 VKAALEAEDG EVETMAHYRA ADHLLPGVTA IIDIGGQDMK YLRVVDQVID

201 SISVNEACSS GCGSFLQTFA AGMDTDIESF SSMSLLAQHP VDLGSRCTVF

251 MNSSVKQAQK EGASPADIAA GLSYSVVRNA LYKVIKLTDP AQLGNKVVVQ

301 GGTFLNNAVL RAFEKLTGRE VVRPAEAGLM GAYGAALTAH ARFHAGEPTT

351 SEGLRERAEL DGFAVETHRD DCALCQNHCQ RTIATFSDGR VFVSGNRCDR

401 GAEVNNRKMA KLPKSELPNV FEDKYKRLFS YRRLTAKKAF RGDLGLPRAL

451 NMYENYPFWF TTLSALGYRV MISGRSSHAL FEKGMESIAS ENICYPAKLN

501 NGHVEDLVQR GVKRIFDPCI RYEQVSVADA DAHFNCPVVA SYPEVIRANV

551 ESLRDKDVEL ISPFLSLADP DKLAERLAEV FADDDVTVDE ARRAIAKGLE

601 EDKAFHDEIR KMGEDALAYM XEHNXPGIVL AGRPYHVDPE IHHGIPEMVN

651 SLGMAVLTED RWPSGSDLLE RPLRVRDQWM FHSRLYQAAA FVGSRPDLEL

701 VQLNSFGCGL DAITTDQVRE ILAARDRIYT TLKIDEVSNL GAARIRMRSL

751 QAASKERASH NRKLVTHPFI G

!!AA_SEQUENCE 1.0
ID AAG79760 standard; protein; 152 AA.
XX
AC AAG79760;
XX
DT 01-APR-2003 (first entry)
XX
DE Bcl-XL.
XX
KW Bcl-2; Bcl-XL; anti-apoptosis; cell division; cancer; gossypol;
KW breast cancer; MDA-MB-231; hyperproliferative disease; cancer; AIDS;
KW degenerative condition; vascular disease; pathogen; bacteria; fungi;
KW virus; cell division.
XX
OS Homo sapiens.
XX
PN WO200297053-A2.
XX
PD 05-DEC-2002.
XX
PF 30-MAY-2002; 2002WO-US017206.
XX
PR 30-MAY-2001; 2001US-0293983P.
PR 30-MAY-2002; 2002US-00293983.
XX
PA (UNMI) UNIV MICHIGAN.
XX
PI Wang S, Yang D;
XX
DR WPI; 2003-140460/13.
XX
PT Modulating apoptosis or cell division in a tissue, treating a subject
PT overexpressing Bcl-2 family protein, and treating cancer in a subject, by
PT administering gossypol compound to the cell, tissue or subject.
XX
PS Example 1; Fig 1; 96pp; English.
XX
CC The sequences given in AAG79759-60 represent Bcl-2 and Bcl-XL. Bcl-2 and
CC Bcl-XL are anti-apoptotic proteins which could be monitored in the method
CC of the invention for modulating apoptosis in a cell, modulating cell
CC division in a tissue, treating a subject over expressing Bcl-2 family
CC protein, and treating cancer in a subject. The method comprises
CC administering a gossypol compound to the cell, tissue or subject.
CC Gossypol was shown to inhibit the breast cancer cell line MDA-MB-231 cell
CC growth with an IC50 value of 2.0 microM. The method of the invention is
CC useful for modulating apoptosis in a diseased cell (e.g.
CC hyperproliferative disease, cancer, AIDS, degenerative condition,
CC vascular disease and infection by pathogen e.g. bacteria, fungi or
CC virus), modulating cell division in a tissue, treating a subject having a
CC condition characterized by overexpression of Bcl-2 family protein, and
CC treating cancer in a subject, where the cancer includes cancer of breast,
CC prostate, skin, pancreas, colon, ovary, brain, liver, bladder, non-small
CC lung or cervix, or melanoma, carcinoma, myeloma, adrenal carcinoma,

CC lymphoma, leukemia, neuroblastoma, glioblastoma and head-neck cancer. The
CC cancer may be metastatic or resistant to cancer therapy including
CC chemotherapy, radiation therapy or hormone treatment
XX
SQ Sequence 152 AA;

AAG79760 Length: 152 May 13, 2004 16:42 Type: P Check: 6126 ..

1 NRELVVDFLS YKLSQKGYSW SQFSDVEENR TEAPEGTESE AVKQALREAG

51 DEFELRYRRA FSDLTSQLHI TPGTAYQSFE QVVNELFRDG VNWGRIVAFF

101 SFGGALCVES VDKEMQVLVS RIAAWMATYL NDHLEPWIQE NGGWDTFVEL

151 YG

!!AA_SEQUENCE 1.0
ID ABR83557 standard; protein; 348 AA.
XX
AC ABR83557;
XX
DT 14-OCT-2003 (first entry)
XX
DE TolA-BCL fusion protein SEQ ID NO:14.
XX
KW Fusion protein; TolA; TolAIII domain; bcr; Escherichia coli; human;
KW interaction; cleavage site.
XX
OS Escherichia coli.
OS Homo sapiens.
XX
PN WO2003057708-A2.
XX
PD 17-JUL-2003.
XX
PF 10-JAN-2003; 2003WO-GB000078.
XX
PR 10-JAN-2002; 2002GB-00000689.
XX
PA (UYNE-) UNIV NEWCASTLE VENTURES LTD.
XX
PI Gokce I, Anderluh G, Lakey JH;
XX
DR WPI; 2003-587105/55.
XX
PT New fusion polypeptides, useful for immobilization or purification and
PT isolation of the non-TolA polypeptide, or for studying interaction
PT properties of the non-TolA polypeptide or the fusion polypeptide, e.g.
PT self-interaction.
XX
PS Example 2; Page 47-48; 68pp; English.
XX
CC The present invention describes a fusion polypeptide (I) for expression
CC in a host cell comprising a TolAIII domain (functional homologue,
CC fragment or derivative), and a non-TolA polypeptide, where the TolAIII
CC domain (functional homologue, fragment or derivative) is located towards
CC the N-terminus of the fusion polypeptide, and the non-TolA polypeptide is
CC located towards the C-terminus of the fusion polypeptide. Also described:
CC (1) a DNA molecule (II) encoding the fusion polypeptide (I); (2) an
CC expression vector (III) comprising (II) for expression of (I); (3) a
CC cloning vector (IV) for producing the expression vector comprising DNA
CC (II) encoding the TolAIII domain (functional homologue, fragment or
CC derivative) upstream or downstream from a cloning site which allows in-
CC frame insertion of DNA encoding a non-TolA polypeptide; and (4) a host
CC cell containing (II), and/or (III), and/or (IV). The TolAIII domain
CC (functional homologue, fragment or derivative) is useful for producing
CC the fusion polypeptide (I), DNA molecule (II), expression vector (III) or
CC cloning vector (IV). The fusion polypeptide (I) is useful for
CC immobilisation or purification and isolation of the non-TolA polypeptide,
CC or for studying interaction properties of the non-TolA polypeptide or the
CC fusion polypeptide, e.g. self-interaction, interaction with another
CC molecule or interaction with a physical stimulus and for high expression
CC of a polypeptide as a fusion polypeptide in a host cell. ACF57145 to
CC ACF57176 and ABR83541 to ABR83574 represent sequence used in the
CC exemplification of the present invention
XX
SQ Sequence 348 AA;

ABR83557 Length: 348 May 13, 2004 16:42 Type: P Check: 5190 ..

1 MHHHHHHSSN NGASGADINN YAGQIKSAIE SKFYDASSYA GKTCTLRIKL

51 APDGMLLDIK PEGGDPALCQ AALAAAKLAK IPKPPSQAVY EVFKNAPLDF

101 KPGGGSGSLV PRGSRPSQSN RELVVDFLSY KLSQKGYSWS QFSDVEENRT

151 EAPEGTESEM ETPSAINGNP SWHLADSPAV NGATAHSSSL DAREVIPMAA

201 VKQALREAGD EFELRYRRAF SDLTSQLHIT PGTAYQSFEQ VVNELFRDGV

251 NWGRIVAFFS FGGALCVESV DKEMQVLVSR IAAWMATYLN DHLEPWIQEN

301 GGWDTFVELY GNNAAAESRK GQERFNRWFL TGMTVAGVVL LGSLFSRK

!!AA_SEQUENCE 1.0
ID ABR83558 standard; protein; 236 AA.
XX
AC ABR83558;
XX
DT 14-OCT-2003 (first entry)
XX
DE TolA-BCL fusion protein after thrombin cleavage SEQ ID NO:15.
XX
KW Fusion protein; TolA; TolAIII domain; bcr; Escherichia coli; human;
KW interaction; cleavage site.
XX
OS Escherichia coli.
OS Homo sapiens.
XX
PN WO2003057708-A2.
XX
PD 17-JUL-2003.
XX
PF 10-JAN-2003; 2003WO-GB000078.
XX
PR 10-JAN-2002; 2002GB-00000689.
XX
PA (UYNE-) UNIV NEWCASTLE VENTURES LTD.
XX
PI Gokce I, Anderluh G, Lakey JH;
XX
DR WPI; 2003-587105/55.
XX
PT New fusion polypeptides, useful for immobilization or purification and
PT isolation of the non-TolA polypeptide, or for studying interaction
PT properties of the non-TolA polypeptide or the fusion polypeptide, e.g.
PT self-interaction.
XX
PS Example 2; Page 48-49; 68pp; English.
XX
CC The present invention describes a fusion polypeptide (I) for expression
CC in a host cell comprising a TolAIII domain (functional homologue,
CC fragment or derivative), and a non-TolA polypeptide, where the TolAIII
CC domain (functional homologue, fragment or derivative) is located towards
CC the N-terminus of the fusion polypeptide, and the non-TolA polypeptide is
CC located towards the C-terminus of the fusion polypeptide. Also described:
CC (1) a DNA molecule (II) encoding the fusion polypeptide (I); (2) an
CC expression vector (III) comprising (II) for expression of (I); (3) a
CC cloning vector (IV) for producing the expression vector comprising DNA
CC (II) encoding the TolAIII domain (functional homologue, fragment or
CC derivative) upstream or downstream from a cloning site which allows in-
CC frame insertion of DNA encoding a non-TolA polypeptide; and (4) a host
CC cell containing (II), and/or (III), and/or (IV). The TolAIII domain
CC (functional homologue, fragment or derivative) is useful for producing
CC the fusion polypeptide (I), DNA molecule (II), expression vector (III) or
CC cloning vector (IV). The fusion polypeptide (I) is useful for

```
CC   immobilisation or purification and isolation of the non-TolA polypeptide,
CC   or for studying interaction properties of the non-TolA polypeptide or the
CC   fusion polypeptide, e.g. self-interaction, interaction with another
CC   molecule or interaction with a physical stimulus and for high expression
CC   of a polypeptide as a fusion polypeptide in a host cell. ACF57145 to
CC   ACF57176 and ABR83541 to ABR83574 represent sequence used in the
CC   exemplification of the present invention
XX
SQ   Sequence 236 AA;

  ABR83558  Length: 236  May 13, 2004 16:42  Type: P  Check: 6234  ..

       1  GSRPSQSNRE LVVDFLSYKL SQKGYSWSQF SDVEENRTEA PEGTESEMET

      51  PSAINGNPSW HLADSPAVNG ATAHSSSLDA REVIPMAAVK QALREAGDEF

     101  ELRYRRAFSD LTSQLHITPG TAYQSFEQVV NELFRDGVNW GRIVAFFSFG

     151  GALCVESVDK EMQVLVSRIA AWMATYLNDH LEPWIQENGG WDTFVELYGN

     201  NAAAESRKGQ ERFNRWFLTG MTVAGVVLLG SLFSRK

!!AA_SEQUENCE 1.0
ID   ABO34750 standard; protein; 365 AA.
XX
AC   ABO34750;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Fragment #68 of a human secreted protein.
XX
KW   Human; secreted protein; hyperproliferative disorder; leukaemia;
KW   breast cancer; wound; reproductive disorder; blood-related disorder;
KW   haemophilia; thrombocytopaenia; immunodeficiency; thymic hypoplasia;
KW   Wiskott-Aldrich syndrome; autoimmune disorder; multiple sclerosis;
KW   graft-versus-host disease; Hashimoto's thyroiditis; allergy; asthma;
KW   viral infection; bacterial infection; fungal infection; AIDS; sepsis;
KW   renal disorder; kidney failure; cardiovascular disorder; cytostatic;
KW   angina pectoris; cerebral ischaemia; congenital heart defect;
KW   respiratory disorder; neurological disorder; Alzheimer's disease;
KW   Parkinson's disease; inflammation; Crohn's disease; vulnerary;
KW   immunosuppressive; antibacterial; haemostatic; thrombolytic;
KW   anticoagulant; neuroprotective; thyromimetic; antiallergic;
KW   antiasthmatic; virucide; fungicide; anti-HIV; nephrotropic; antianginal;
KW   cerebroprotective; cardiant; nootropic; antiparkinsonian;
KW   antiinflammatory.
XX
OS   Homo sapiens.
XX
PN   US2003049618-A1.
XX
PD   13-MAR-2003.
XX
PF   16-MAR-2001; 2001US-00809391.
XX
PR   07-MAR-1997;   97US-0038621P.
PR   07-MAR-1997;   97US-0040162P.
PR   07-MAR-1997;   97US-0040163P.
PR   07-MAR-1997;   97US-0040333P.
PR   07-MAR-1997;   97US-0040334P.
PR   07-MAR-1997;   97US-0040336P.
PR   07-MAR-1997;   97US-0040626P.
PR   11-APR-1997;   97US-0043311P.
PR   11-APR-1997;   97US-0043312P.
PR   11-APR-1997;   97US-0043313P.
PR   11-APR-1997;   97US-0043314P.
PR   11-APR-1997;   97US-0043315P.
PR   11-APR-1997;   97US-0043568P.
PR   11-APR-1997;   97US-0043569P.
PR   11-APR-1997;   97US-0043576P.
PR   11-APR-1997;   97US-0043578P.
PR   11-APR-1997;   97US-0043580P.
PR   11-APR-1997;   97US-0043669P.
PR   11-APR-1997;   97US-0043670P.
PR   11-APR-1997;   97US-0043671P.
PR   11-APR-1997;   97US-0043672P.
PR   11-APR-1997;   97US-0043674P.
PR   23-MAY-1997;   97US-0047492P.
PR   23-MAY-1997;   97US-0047500P.
PR   23-MAY-1997;   97US-0047501P.
PR   23-MAY-1997;   97US-0047502P.
PR   23-MAY-1997;   97US-0047503P.
PR   23-MAY-1997;   97US-0047581P.
PR   23-MAY-1997;   97US-0047582P.
PR   23-MAY-1997;   97US-0047583P.
PR   23-MAY-1997;   97US-0047584P.
PR   23-MAY-1997;   97US-0047585P.
PR   23-MAY-1997;   97US-0047586P.
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PR   23-MAY-1997;   97US-0047590P.
PR   23-MAY-1997;   97US-0047592P.
PR   23-MAY-1997;   97US-0047593P.
PR   23-MAY-1997;   97US-0047594P.
PR   23-MAY-1997;   97US-0047595P.
PR   23-MAY-1997;   97US-0047596P.
PR   23-MAY-1997;   97US-0047597P.
PR   23-MAY-1997;   97US-0047598P.
PR   23-MAY-1997;   97US-0047599P.
PR   23-MAY-1997;   97US-0047600P.
PR   23-MAY-1997;   97US-0047601P.
PR   23-MAY-1997;   97US-0047612P.
PR   23-MAY-1997;   97US-0047613P.
PR   23-MAY-1997;   97US-0047614P.
PR   23-MAY-1997;   97US-0047615P.
PR   23-MAY-1997;   97US-0047617P.
PR   23-MAY-1997;   97US-0047618P.
PR   23-MAY-1997;   97US-0047632P.
PR   23-MAY-1997;   97US-0047633P.
PR   06-JUN-1997;   97US-0048964P.
PR   06-JUN-1997;   97US-0048974P.
PR   13-JUN-1997;   97US-0049610P.
PR   08-JUL-1997;   97US-0051926P.
PR   16-JUL-1997;   97US-0052874P.
PR   18-AUG-1997;   97US-0055724P.
PR   22-AUG-1997;   97US-0056630P.
PR   22-AUG-1997;   97US-0056631P.
PR   22-AUG-1997;   97US-0056632P.
PR   22-AUG-1997;   97US-0056636P.
PR   22-AUG-1997;   97US-0056637P.
PR   22-AUG-1997;   97US-0056662P.
PR   22-AUG-1997;   97US-0056664P.
PR   22-AUG-1997;   97US-0056845P.
PR   22-AUG-1997;   97US-0056862P.
PR   22-AUG-1997;   97US-0056864P.
PR   22-AUG-1997;   97US-0056872P.
PR   22-AUG-1997;   97US-0056874P.
PR   22-AUG-1997;   97US-0056875P.
PR   22-AUG-1997;   97US-0056876P.
PR   22-AUG-1997;   97US-0056877P.
PR   22-AUG-1997;   97US-0056878P.
PR   22-AUG-1997;   97US-0056879P.
PR   22-AUG-1997;   97US-0056880P.
PR   22-AUG-1997;   97US-0056881P.
PR   22-AUG-1997;   97US-0056882P.
PR   22-AUG-1997;   97US-0056884P.
PR   22-AUG-1997;   97US-0056886P.
PR   22-AUG-1997;   97US-0056887P.
PR   22-AUG-1997;   97US-0056888P.
PR   22-AUG-1997;   97US-0056889P.
PR   22-AUG-1997;   97US-0056892P.
PR   22-AUG-1997;   97US-0056893P.
PR   22-AUG-1997;   97US-0056894P.
PR   22-AUG-1997;   97US-0056903P.
PR   22-AUG-1997;   97US-0056908P.
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PR 22-AUG-1997; 97US-0056909P.
PR 22-AUG-1997; 97US-0056910P.
PR 22-AUG-1997; 97US-0056911P.
PR 05-SEP-1997; 97US-0057650P.
PR 05-SEP-1997; 97US-0057669P.
PR 05-SEP-1997; 97US-0057761P.
PR 12-SEP-1997; 97US-0058785P.
PR 09-OCT-1997; 97US-0061660P.
PR 06-MAR-1998; 98WO-US004493.
PR 08-SEP-1998; 98US-00149476.
PR 17-MAR-2000; 2000US-0190068P.
XX
PA (RUBE/) RUBEN S M.
PA (ROSE/) ROSEN C A.
PA (SOPP/) SOPPET D R.
PA (CART/) CARTER K C.
PA (BEDN/) BEDNARIK D P.
PA (ENDR/) ENDRESS G A.
PA (YUGG/) YU G.
PA (NIJJ/) NI J.
PA (FENG/) FENG P.
PA (YOUN/) YOUNG P E.
PA (GREE/) GREENE J M.
PA (FERR/) FERRIE A M.
PA (DUAN/) DUAN D R.
PA (HUJJ/) HU J.
PA (FLOR/) FLORENCE K A.
PA (OLSE/) OLSEN H S.
PA (FISC/) FISCHER C L.
PA (EBNE/) EBNER R.
PA (BREW/) BREWER L A.
PA (MOOR/) MOORE P A.
PA (SHIY/) SHI Y.
PA (LAFL/) LAFLEUR D W.
PA (LIYY/) LI Y.
PA (ZENG/) ZENG Z.
PA (KYAW/) KYAW H.
XX
PI Ruben SM, Rosen CA, Soppet DR, Carter KC, Bednarik DP;
PI Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM, Ferrie AM;
PI Duan DR, Hu J, Florence KA, Olsen HS, Fischer CL, Ebner R;
PI Brewer LA, Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
XX
DR WPI; 2003-521800/49.
XX
PT New genes and its encoded prostate cancer antigen proteins, useful for
PT preventing, treating, ameliorating or diagnosing e.g. prostate cancers,
PT thymic hypoplasia, multiple sclerosis, AIDS, angina pectoris or cerebral
PT ischemia.
XX
PS Claim 3; Page 59; 260pp; English.
XX
CC The present invention relates to the isolation of novel human secreted
CC proteins and the polynucleotide sequences encoding them. The invention
CC also discloses vectors, host cells, antibodies, and recombinant methods
CC for producing human secreted proteins. The polypeptide and polynucleotide
CC sequences for the secreted proteins are useful for preventing, treating,
CC ameliorating or diagnosing medical conditions such as hyperproliferative
CC disorders (e.g. leukaemia or breast cancers), wounds, reproductive
CC disorders, blood-related disorders (e.g. haemophilia or
CC thrombocytopaenia), immunodeficiencies (e.g. Wiskott-Aldrich syndrome or
CC thymic hypoplasia), autoimmune disorders (e.g. graft-versus-host disease,
CC multiple sclerosis or Hashimoto's thyroiditis), allergies (e.g. asthma),
CC viral or bacterial or fungal infections (e.g. AIDS or sepsis), renal
CC disorders (e.g. kidney failure), cardiovascular disorders (e.g. angina
CC pectoris, cerebral ischaemia or congenital heart defects), respiratory
CC disorders, neurological disorders (e.g. Alzheimer's disease or
CC Parkinson's disease), and inflammations (e.g. Crohn's disease). The
CC polynucleotide or polypeptide may also be used as vaccine adjuvants.
CC ABO34374-ABO34815 represent human secreted proteins or their fragments.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from the
CC USPTO web site at seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ Sequence 365 AA;

ABO34750 Length: 365 May 13, 2004 16:42 Type: P Check: 9605 ..

1 MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWLSQITE

151 AEMADEVICS EILSDCDSAA SSPDLEELEA IKARVREMEE EAEKLKELQN

201 EVEKQMNMSP PPGNAGPVIM SIEEKMEADA RSIYVGNVDY GATAEELEAH

251 FHGCGSVNRV TILCDKFSGH PKGFAYIEFS DKESVRTSLA LDESLFRGRQ

301 IKVIPKRTNR PGISTTDRGF PRARYRARTT NYNSSRSRFY SGFNSRPRGR

351 VYRGRARATS WYSPY

!!AA_SEQUENCE 1.0
ID ABO22402 standard; protein; 117 AA.
XX
AC ABO22402;
XX
DT 02-SEP-2003 (first entry)
XX
DE Mosquito baculovirus polypeptide #32.
XX
KW Mosquito-infecting baculovirus; Culicidae; Culex; Aedes; Anopheles;
KW larva; Psorophora; Uranotaenia; Wyeomyia; broad-spectrum insect control;
KW enhanced storage; enhanced stability.
XX
OS Baculoviridae.
XX
PN US6521454-B1.
XX
PD 18-FEB-2003.
XX
PF 30-JUN-1999; 99US-00345236.
XX
PR 30-JUN-1999; 99US-00345236.
XX
PA (USDA) US SEC OF AGRIC.
XX
PI Becnel JJ, Tukuo F, Moser B, Cockburn A, White SE, Undeen AH;
XX
DR WPI; 2003-491742/46.
XX
PT New engineered mosquito-infecting baculovirus, useful for controlling
PT mosquitoes of Culicidae, e.g. Culex, Aedes, Anopheles, Psorophora,
PT Uranotaenia or Wyeomyia, particularly for killing mosquitoes in their
PT larval stage.
XX
PS Disclosure; Col 111-112; 170pp; English.
XX
CC The invention relates to an isolated mosquito-infecting baculovirus
CC having the following characteristics. The baculovirus or the insecticidal
CC compositions are useful for controlling mosquitoes, particularly members
CC of Culicidae, e.g. Culex, Aedes, Anopheles, Psorophora, Uranotaenia or
CC Wyeomyia mosquito species. The baculovirus is particularly useful for
CC killing mosquitoes in their larval stage. Prior baculoviruses species had
CC a commercial disadvantage because of its narrow host range. The present
CC baculovirus can be used for broad-spectrum insect control and can infect
CC many mosquito species. It also enhanced storage and stability. The
CC present sequence represents the amino acid sequence of a mosquito
CC baculovirus polypeptide
XX
SQ Sequence 117 AA;

ABO22402 Length: 117 May 13, 2004 16:42 Type: P Check: 8568 ..

```
      1  MFASRSEIFS IYRFKLPLSV NSFEMPSLTS PRKPFSSSST FISLSRFTAL

     51  SYSFSDRFKR LYSALNCSKL CSKPSTVSKP FSFRIFSTRS IRSRLVIAMS

    101  YSTACLFLAS RPRIIFS

!!AA_SEQUENCE 1.0
ID   ADE62921 standard; protein; 233 AA.
XX
AC   ADE62921;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Rat Protein P53563, SEQ ID NO 8855.
XX
KW   Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
KW   chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
XX
OS   Rattus norvegicus.
XX
PN   WO2003016475-A2.
XX
PD   27-FEB-2003.
XX
PF   14-AUG-2002; 2002WO-US025765.
XX
PR   14-AUG-2001; 2001US-0312147P.
PR   01-NOV-2001; 2001US-0346382P.
PR   26-NOV-2001; 2001US-0333347P.
XX
PA   (GEHO ) GEN HOSPITAL CORP.
PA   (FARB ) BAYER AG.
XX
PI   Woolf C,  D'urso D,  Befort K,  Costigan M;
XX
DR   WPI; 2003-268312/26.
DR   GENBANK; P53563.
XX
PT   New composition comprising two or more isolated polypeptides, useful for
PT   preparing a medicament for treating pain in an animal.
XX
PS   Claim 1; Page; 1017pp; English.
XX
CC   The invention discloses a composition comprising two or more isolated rat
CC   or human polynucleotides or a polynucleotide which represents a fragment,
CC   derivative or allelic variation of the nucleic acid sequence. Also
CC   claimed are a vector comprising the novel polynucleotide, a host cell
CC   comprising the vector, a method for identifying a nucleotide sequence
CC   which is differentially regulated in an animal subjected to pain and a
CC   kit to perform the method, an array, a method for identifying an agent
CC   that increases or decreases the expression of the polynucleotide sequence
CC   that is differentially expressed in neuronal tissue of a first animal
CC   subjected to pain, a method for identifying a compound which regulates
CC   the expression of a polynucleotide sequence which is differentially
CC   expressed in an animal subjected to pain, a method for identifying a
CC   compound that regulates the activity of one or more of the
CC   polynucleotides, a method for producing a pharmaceutical composition, a
CC   method for identifying a compound or small molecule that regulates the
CC   activity in an animal of one or more of the polypeptides given in the
CC   specification, a method for identifying a compound useful in treating
CC   pain and a pharmaceutical composition comprising the one or more
CC   polypeptides or their antibodies. The polynucleotide or the compound that
CC   modulates its activity is useful for preparing a medicament for treating
CC   pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC   injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC   therapy). The sequence presented is a rat protein (shown in Table 2 of
CC   the specification) which is differentially expressed during pain. Note:
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic form directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 233 AA;

 ADE62921  Length: 233  May 13, 2004 16:42  Type: P  Check: 6384  ..

      1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

     51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

    101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

    151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

    201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   ADE62493 standard; protein; 233 AA.
XX
AC   ADE62493;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human Protein Q07817, SEQ ID NO 8422.
XX
KW   Human; pain; neuronal tissue; gene therapy;
KW   spinal segmental nerve injury; chronic constriction injury; CCI;
KW   spared nerve injury; SNI; Chung.
XX
OS   Homo sapiens.
XX
PN   WO2003016475-A2.
XX
PD   27-FEB-2003.
XX
PF   14-AUG-2002; 2002WO-US025765.
XX
PR   14-AUG-2001; 2001US-0312147P.
PR   01-NOV-2001; 2001US-0346382P.
PR   26-NOV-2001; 2001US-0333347P.
XX
PA   (GEHO ) GEN HOSPITAL CORP.
PA   (FARB ) BAYER AG.
XX
PI   Woolf C,  D'urso D,  Befort K,  Costigan M;
XX
DR   WPI; 2003-268312/26.
DR   GENBANK; Q07817.
XX
PT   New composition comprising two or more isolated polypeptides, useful for
PT   preparing a medicament for treating pain in an animal.
XX
PS   Claim 1; Page; 1017pp; English.
XX
CC   The invention discloses a composition comprising two or more isolated rat
CC   or human polynucleotides or a polynucleotide which represents a fragment,
CC   derivative or allelic variation of the nucleic acid sequence. Also
CC   claimed are a vector comprising the novel polynucleotide, a host cell
CC   comprising the vector, a method for identifying a nucleotide sequence
CC   which is differentially regulated in an animal subjected to pain and a
CC   kit to perform the method, an array, a method for identifying an agent
CC   that increases or decreases the expression of the polynucleotide sequence
CC   that is differentially expressed in neuronal tissue of a first animal
CC   subjected to pain, a method for identifying a compound which regulates
CC   the expression of a polynucleotide sequence which is differentially
CC   expressed in an animal subjected to pain, a method for identifying a
CC   compound that regulates the activity of one or more of the
CC   polynucleotides, a method for producing a pharmaceutical composition, a
CC   method for identifying a compound or small molecule that regulates the
CC   activity in an animal of one or more of the polypeptides given in the
CC   specification, a method for identifying a compound useful in treating
CC   pain and a pharmaceutical composition comprising the one or more
CC   polypeptides or their antibodies. The polynucleotide or the compound that
CC   modulates its activity is useful for preparing a medicament for treating
CC   pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC   injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC   therapy). The sequence presented is a human protein (shown in Table 2 of
```

CC the specification) which is differentially expressed during pain. Note:
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic form directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 233 AA;

ADE62493 Length: 233 May 13, 2004 16:42 Type: P Check: 5418 ..

1 MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEG TESEMETPSA

51 INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

101 YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

151 CVESVDKEMQ VLVSRIAAWM ATYLNDHLEP WIQENGGWDT FVELYGNNAA

201 AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID ADD46742 standard; protein; 193 AA.
XX
AC ADD46742;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human Protein Q92843, SEQ ID NO 12427.
XX
KW Human; pain; neuronal tissue; gene therapy;
KW spinal segmental nerve injury; chronic constriction injury; CCI;
KW spared nerve injury; SNI; Chung.
XX
OS Homo sapiens.
XX
PN WO2003016475-A2.
XX
PD 27-FEB-2003.
XX
PF 14-AUG-2002; 2002WO-US025765.
XX
PR 14-AUG-2001; 2001US-0312147P.
PR 01-NOV-2001; 2001US-0346382P.
PR 26-NOV-2001; 2001US-0333347P.
XX
PA (GEHO) GEN HOSPITAL CORP.
PA (FARB) BAYER AG.
XX
PI Woolf C, D'urso D, Befort K, Costigan M;
XX
DR WPI; 2003-268312/26.
DR GENBANK; Q92843.
XX
PT New composition comprising two or more isolated polypeptides, useful for
PT preparing a medicament for treating pain in an animal.
XX
PS Claim 1; Page; 1017pp; English.
XX
CC The invention discloses a composition comprising two or more isolated rat
CC or human polynucleotides or a polynucleotide which represents a fragment,
CC derivative or allelic variation of the nucleic acid sequence. Also
CC claimed are a vector comprising the novel polynucleotide, a host cell
CC comprising the vector, a method for identifying a nucleotide sequence
CC which is differentially regulated in an animal subjected to pain and a
CC kit to perform the method, an array, a method for identifying an agent
CC that increases or decreases the expression of the polynucleotide sequence
CC that is differentially expressed in neuronal tissue of a first animal
CC subjected to pain, a method for identifying a compound which regulates
CC the expression of a polynucleotide sequence which is differentially
CC expressed in an animal subjected to pain, a method for identifying a
CC compound that regulates the activity of one or more of the
CC polynucleotides, a method for producing a pharmaceutical composition, a
CC method for identifying a compound or small molecule that regulates the
CC activity in an animal of one or more of the polypeptides given in the
CC specification, a method for identifying a compound useful in treating
CC pain and a pharmaceutical composition comprising the one or more
CC polypeptides or their antibodies. The polynucleotide or the compound that
CC modulates its activity is useful for preparing a medicament for treating
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC therapy). The sequence presented is a human protein (shown in Table 2 of
CC the specification) which is differentially expressed during pain. Note:
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic form directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 193 AA;

ADD46742 Length: 193 May 13, 2004 16:42 Type: P Check: 9619 ..

1 MATPASAPDT RALVADFVGY KLRQKGYVCG AGPGEGPAAD PLHQAMRAAG

51 DEFETRFRRT FSDLAAQLHV TPGSAQQRFT QVSDELFQGG PNWGRLVAFF

101 VFGAALCAES VNKEMEPLVG QVQEWMVAYL ETRLADWIHS SGGWAEFTAL

151 YGDGALEEAR RLREGNWASV RTVLTGAVAL GALVTVGAFF ASK

!!AA_SEQUENCE 1.0
ID ADE62491 standard; protein; 233 AA.
XX
AC ADE62491;
XX
DT 29-JAN-2004 (first entry)
XX
DE Rat Protein P53563, SEQ ID NO 8420.
XX
KW Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
XX
OS Rattus norvegicus.
XX
PN WO2003016475-A2.
XX
PD 27-FEB-2003.
XX
PF 14-AUG-2002; 2002WO-US025765.
XX
PR 14-AUG-2001; 2001US-0312147P.
PR 01-NOV-2001; 2001US-0346382P.
PR 26-NOV-2001; 2001US-0333347P.
XX
PA (GEHO) GEN HOSPITAL CORP.
PA (FARB) BAYER AG.
XX
PI Woolf C, D'urso D, Befort K, Costigan M;
XX
DR WPI; 2003-268312/26.
DR GENBANK; P53563.
XX
PT New composition comprising two or more isolated polypeptides, useful for
PT preparing a medicament for treating pain in an animal.
XX
PS Claim 1; Page; 1017pp; English.
XX
CC The invention discloses a composition comprising two or more isolated rat
CC or human polynucleotides or a polynucleotide which represents a fragment,
CC derivative or allelic variation of the nucleic acid sequence. Also
CC claimed are a vector comprising the novel polynucleotide, a host cell
CC comprising the vector, a method for identifying a nucleotide sequence
CC which is differentially regulated in an animal subjected to pain and a
CC kit to perform the method, an array, a method for identifying an agent
CC that increases or decreases the expression of the polynucleotide sequence
CC that is differentially expressed in neuronal tissue of a first animal
CC subjected to pain, a method for identifying a compound which regulates
CC the expression of a polynucleotide sequence which is differentially
CC expressed in an animal subjected to pain, a method for identifying a

```
CC   compound that regulates the activity of one or more of the
CC   polynucleotides, a method for producing a pharmaceutical composition, a
CC   method for identifying a compound or small molecule that regulates the
CC   activity in an animal of one or more of the polypeptides given in the
CC   specification, a method for identifying a compound useful in treating
CC   pain and a pharmaceutical composition comprising the one or more
CC   polypeptides or their antibodies. The polynucleotide or the compound that
CC   modulates its activity is useful for preparing a medicament for treating
CC   pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC   injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC   therapy). The sequence presented is a rat protein (shown in Table 2 of
CC   the specification) which is differentially expressed during pain. Note:
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic form directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 233 AA;

  ADE62491  Length: 233  May 13, 2004 16:42  Type: P  Check: 6384  ..

       1  MSQSNRELVV DFLSYKLSQK GYSWSQFSDV EENRTEAPEE TEPERETPSA

      51  INGNPSWHLA DSPAVNGATG HSSSLDAREV IPMAAVKQAL REAGDEFELR

     101  YRRAFSDLTS QLHITPGTAY QSFEQVVNEL FRDGVNWGRI VAFFSFGGAL

     151  CVESVDKEMQ VLVSRIASWM ATYLNDHLEP WIQENGGWDT FVDLYGNNAA

     201  AESRKGQERF NRWFLTGMTV AGVVLLGSLF SRK

!!AA_SEQUENCE 1.0
ID   AAP00003 standard; peptide; 9 AA.
XX
AC   AAP00003;
XX
DT   25-MAR-2003  (revised)
DT   16-AUG-2002  (revised)
DT   15-OCT-1992  (first entry)
XX
DE   Sequence of peptide used in enzyme immunoassay of pancreatic glucagon.
XX
KW   Pancreatic glucagon; enzyme immunoassay.
XX
OS   Synthetic.
XX
PN   EP9147-A.
XX
PD   02-APR-1980.
XX
PF   30-AUG-1978;   78JP-00106828.
XX
PR   30-AUG-1978;   78JP-00106828.
XX
PA   (TAKE ) TAKEDA YAKUHIN KOGYO KK.
XX
PI   Iwasa S,  Ueno H,  Wakimasu M;
XX
DR   WPI; 1980-25734C/15.
XX
PT   Peptide-enzyme conjugates - useful in enzyme immunoassay of pancreatic
PT   glucagon in plasma.
XX
PS   Claim 4; Page 66; 72pp; English.
XX
CC   The method of the invention uses a peptide-enzyme conjugate. The generic
CC   sequence for the peptide is AAP00001, and AAP00002 and AAP00003 are two
CC   examples. The peptide is conjugated to a labelling enzyme, pref. beta-
CC   galactosidase or alkaline phosphatase. For the enzyme assay the conjugate
CC   and an insoluble pancreatic glucagon-specific antibody are added to the
CC   test fluid, and the enzyme activity of the reacted conjugate is
CC   determined. (Updated on 16-AUG-2002 to add missing OS field.) (Updated on
CC   25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP00003  Length: 9  May 13, 2004 16:42  Type: P  Check: 3624  ..

       1  DRVQWLMNT

!!AA_SEQUENCE 1.0
ID   AAP00001 standard; peptide; 18 AA.
XX
AC   AAP00001;
XX
DT   25-MAR-2003  (revised)
DT   16-AUG-2002  (revised)
DT   15-OCT-1992  (first entry)
XX
DE   Generic sequence of peptide used in enzyme immunoassay of pancreatic
DE   glucagon.
XX
KW   Pancreatic glucagon; enzyme immunoassay.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .10
FT                   /note= "a fragment consisting of 1 to 10 residues in this
FT                   sequence of and including the Asp in 10 posn."
FT   Modified-site   1
FT                   /label= beta-Ala
FT   Misc-difference 16
FT                   /label= Met, Nle
XX
PN   EP9147-A.
XX
PD   02-APR-1980.
XX
PF   30-AUG-1978;   78JP-00106828.
XX
PR   30-AUG-1978;   78JP-00106828.
XX
PA   (TAKE ) TAKEDA YAKUHIN KOGYO KK.
XX
PI   Iwasa S,  Ueno H,  Wakimasu M;
XX
DR   WPI; 1980-25734C/15.
XX
PT   Peptide-enzyme conjugates - useful in enzyme immunoassay of pancreatic
PT   glucagon in plasma.
XX
PS   Claim 1; Page 66; 72pp; English.
XX
CC   The method of the invention uses a peptide-enzyme conjugate. The generic
CC   sequence for the peptide is AAP00001, and AAP00002 and AAP00003 are two
CC   examples. The peptide is conjugated to a labelling enzyme, pref. beta-
CC   galactosidase or alkaline phosphatase. For the enzyme assay the conjugate
CC   and an insoluble pancreatic glucagon-specific antibody are added to the
CC   test fluid, and the enzyme activity of the reacted conjugate is
CC   determined. (Updated on 16-AUG-2002 to add missing OS field.) (Updated on
CC   25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 18 AA;

   AAP00001  Length: 18  May 13, 2004 16:42  Type: P  Check: 3612  ..

       1  AYLDSRRAQD FVQWLXNT

!!AA_SEQUENCE 1.0
ID   AAP00002 standard; peptide; 15 AA.
XX
AC   AAP00002;
XX
DT   25-MAR-2003  (revised)
DT   16-AUG-2002  (revised)
DT   15-OCT-1992  (first entry)
```

```
XX
DE   Generic sequence of peptide used in enzyme immunoassay of pancreatic
DE   glucagon.
XX
KW   Pancreatic glucagon; enzyme immunoassay.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .7
FT                   /note= "fragment consisting of 1 to 7 residues in this
FT                   sequence of and including the Asp in 7-posn."
XX
PN   EP9147-A.
XX
PD   02-APR-1980.
XX
PF   30-AUG-1978;   78JP-00106828.
XX
PR   30-AUG-1978;   78JP-00106828.
XX
PA   (TAKE ) TAKEDA YAKUHIN KOGYO KK.
XX
PI   Iwasa S,  Ueno H,  Wakimasu M;
XX
DR   WPI; 1980-25734C/15.
XX
PT   Peptide-enzyme conjugates - useful in enzyme immunoassay of pancreatic
PT   glucagon in plasma.
XX
PS   Claim 2; Page 66; 72pp; English.
XX
CC   The method of the invention uses a peptide-enzyme conjugate. The generic
CC   sequence for the peptide is AAP00001, and AAP00002 and AAP00003 are two
CC   examples. The peptide is conjugated to a labelling enzyme, pref. beta-
CC   galactosidase or alkaline phosphatase. For the enzyme assay the conjugate
CC   and an insoluble pancreatic glucagon-specific antibody are added to the
CC   test fluid, and the enzyme activity of the reacted conjugate is
CC   determined. (Updated on 16-AUG-2002 to add missing OS field.) (Updated on
CC   25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 15 AA;

   AAP00002  Length: 15  May 13, 2004 16:42  Type: P  Check: 9461  ..

       1  DSRRAQDFVQ WLMNT

!!AA_SEQUENCE 1.0
ID   AAP00009 standard; protein; 26 AA.
XX
AC   AAP00009;
XX
DT   27-AUG-2003  (revised)
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   N-terminal sequence of influenza haemagglutinin encoded by cDNA prepd.
DE   from viral RNA.
XX
KW   Vaccine; influenza gene; haemagglutinin; antigen.
XX
OS   Avian influenza virus.
XX
PN   BE882545-A.
XX
PD   30-SEP-1980.
XX
PF   02-APR-1979;   79GB-00011487.
XX
PR   02-APR-1979;   79GB-00011487.
PR   31-MAR-1980;   80GB-00010777.
XX
PA   (SEAR ) SEARLE & CO G D.
XX
DR   WPI; 1980-73458C/42.
DR   N-PSDB; AAN00005.
XX
PT   Synthetic influenza gene prodn. - from viral RNA by inVerse transcription
PT   then converting DNA to double helix coding for antigenic proteins when
PT   incorporated in plasmid(s).
XX
PS   Disclosure; Fig 5; 23pp; French.
XX
CC   Viral RNA (vRNA) was isolated from fowl pest virus (Rostock Strain),
CC   subjected to polyadenylation with ATP/poly(A) polymerase, then the
CC   corresp. DNA was synthesised using inverse transcriptase (IT). AAN00004
CC   shows the structure of vRNA for influenza haemagglutinin, indicating the
CC   posns. of the start and stop codons. AAN00005 and AAN00006 give the
CC   sequences of cDNA corresp. to bps 1-98 and 1028-1129 of AAN00004
CC   respectively. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 26 AA;

   AAP00009  Length: 26  May 13, 2004 16:42  Type: P  Check: 5966  ..

       1  MNTQILVFAL VAVIPTNADK ICLGHH

!!AA_SEQUENCE 1.0
ID   AAP00010 standard; protein; 34 AA.
XX
AC   AAP00010;
XX
DT   27-AUG-2003  (revised)
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of central portion of influenza haemagglutinin encoded by cDNA
DE   prepd. from viral RNA.
XX
KW   Vaccine; influenza gene; haemagglutinin; antigen.
XX
OS   Avian influenza virus.
XX
PN   BE882545-A.
XX
PD   30-SEP-1980.
XX
PF   02-APR-1979;   79GB-00011487.
XX
PR   02-APR-1979;   79GB-00011487.
PR   31-MAR-1980;   80GB-00010777.
XX
PA   (SEAR ) SEARLE & CO G D.
XX
DR   WPI; 1980-73458C/42.
DR   N-PSDB; AAN00006.
XX
PT   Synthetic influenza gene prodn. - from viral RNA by inVerse transcription
PT   then converting DNA to double helix coding for antigenic proteins when
PT   incorporated in plasmid(s).
XX
PS   Disclosure; Fig 5; 23pp; French.
XX
CC   Viral RNA (vRNA) was isolated from fowl pest virus (Rostock Strain),
CC   subjected to polyadenylation with ATP/poly(A) polymerase, then the
CC   corresp. DNA was synthesised using inverse transcriptase (IT). AAN00004
CC   shows the structure of vRNA for influenza haemagglutinin, indicating the
CC   posns. of the start and stop codons. AAN00005 and AAN00006 give the
CC   sequences of cDNA corresp. to bps 1-98 and 1028-1129 of AAN00004
CC   respectively. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 34 AA;
```

AAP00010 Length: 34 May 13, 2004 16:42 Type: P Check: 4913 ..

1 KKREKRGLFG AIAGFIENGW EGLVDGWYGF RHQN

```
!!AA_SEQUENCE 1.0
ID   AAP00005 standard; protein; 226 AA.
XX
AC   AAP00005;
XX
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of surface antigen.
XX
KW   Hepatitis B virus; antigen; antibody; diagnosis; vaccine.
XX
OS   Hepatitis B virus.
XX
PN   EP13828-A.
XX
PD   06-AUG-1980.
XX
PF   22-DEC-1978;   78GB-00049901.
XX
PR   22-DEC-1978;   78GB-00049901.
PR   22-DEC-1978;   78GB-00049907.
PR   27-DEC-1978;   78GB-00050039.
PR   28-DEC-1978;   85EP-00201908.
PR   01-NOV-1979;   79GB-00037910.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Murray K,  Schaller HE;
XX
DR   WPI; 1980-57268C/33.
DR   N-PSDB; AAN00001.
XX
PT   Recombinant DNA coding for polypeptide - have specificity of hepatitis B
PT   viral antigens in detection or antibody stimulation (PT 19.6.80).
XX
PS   Claim 13; Page 40; 43pp; English.
XX
CC   Human serum from a single HBsAg positive, HBeAg positive donor (serotype
CC   adym) was used to prep. a DNA-contg. pellet which was labelled with 3H or
CC   32P as described by P. M. Kaplan et al (1973). The labelled DNA was then
CC   extracted with phenol from the resulting pellet using the procedure of L.
CC   I. Lutwick and W. S. Robinson (1977). It was then cloned in plasmid
CC   pBR322 which was used to transform E. coli. Micro-organisms prepd. by the
CC   processes are deposited at the NCIB as pBR322-HBV-G-L, e.g. E. coli
CC   HB101/pBR322-Pst I dG: HBV-Kpn I dC: TetR AmpS HBV+. (Updated on 25-MAR-
CC   2003 to correct PR field.)
XX
SQ   Sequence 226 AA;
```

AAP00005 Length: 226 May 13, 2004 16:42 Type: P Check: 1941 ..

1 MENITSGFLG PLLVLQAGFF LLTRILTIPQ SLDSWWTSLN FLGGTTVCLG

51 QNSQSPISNH SPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY

101 QGMLPVCPLI PGSSTTSTGS CRTCTTPAQG ISMYPSCCCT KPSDGNCTCI

151 PIPSSWAFGK PLWEWASARF SWLSLLVPFV QWFVGLSPIV WLSVIWMMWY

201 WGPSLYSILS PFLPLLPIFF CLWAYI

```
!!AA_SEQUENCE 1.0
ID   AAP00004 standard; protein; 184 AA.
XX
AC   AAP00004;
XX
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of core antigen.
XX
KW   Hepatitis B virus; antigen; antibody; diagnosis; vaccine.
XX
OS   Hepatitis B virus.
XX
PN   EP13828-A.
XX
PD   06-AUG-1980.
XX
PF   22-DEC-1978;   78GB-00049901.
XX
PR   22-DEC-1978;   78GB-00049901.
PR   22-DEC-1978;   78GB-00049907.
PR   27-DEC-1978;   78GB-00050039.
PR   28-DEC-1978;   85EP-00201908.
PR   01-NOV-1979;   79GB-00037910.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Murray K,  Schaller HE;
XX
DR   WPI; 1980-57268C/33.
DR   N-PSDB; AAN00002.
XX
PT   Recombinant DNA coding for polypeptide - have specificity of hepatitis B
PT   viral antigens in detection or antibody stimulation (PT 19.6.80).
XX
PS   Claim 13; Page 40; 43pp; English.
XX
CC   Human serum from a single HBsAg positive, HBeAg positive donor (serotype
CC   adym) was used to prep. a DNA-contg. pellet which was labelled with 3H or
CC   32P as described by P. M. Kaplan et al (1973). The labelled DNA was then
CC   extracted with phenol from the resulting pellet using the procedure of L.
CC   I. Lutwick and W. S. Robinson (1977). It was then cloned in plasmid
CC   pBR322 which was used to transform E. coli. Micro-organisms prepd. by the
CC   processes are deposited at the NCIB as pBR322-HBV-G-L, e.g. E. coli
CC   HB101/pBR322-Pst I dG: HBV-Kpn I dC: TetR AmpS HBV+. (Updated on 25-MAR-
CC   2003 to correct PR field.)
XX
SQ   Sequence 184 AA;
```

AAP00004 Length: 184 May 13, 2004 16:42 Type: P Check: 1893 ..

1 MDIDPYKEFG ATVELLSFLP SDFFPSVCRD LLDTAAALYR DALESPEHCS

51 PHHTALRQAI LCWGDLMTLA TWVGTNLEDP ASRDLVVSYV NTNVGLKFRQ

101 LLWFHISCLT FGRETVLEYL VSFGVWIRTP PAYRPPNAPI LSTLPETTVV

151 RRRGRSPRRR TPSPRRRRSQ SPRRRRSQSR ESQC

```
!!AA_SEQUENCE 1.0
ID   AAP00042 standard; protein; 226 AA.
XX
AC   AAP00042;
XX
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of surface antigen.
XX
KW   Hepatitis B virus; antigen; antibody; diagnosis; vaccine.
XX
OS   Hepatitis B virus.
XX
PN   EP13828-A.
XX
PD   06-AUG-1980.
```

```
XX
PF   22-DEC-1978;   78GB-00049901.
XX
PR   22-DEC-1978;   78GB-00049901.
PR   22-DEC-1978;   78GB-00049907.
PR   27-DEC-1978;   78GB-00050039.
PR   28-DEC-1978;   85EP-00201908.
PR   01-NOV-1979;   79GB-00037910.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Murray K,  Schaller HE;
XX
DR   WPI; 1980-57268C/33.
DR   N-PSDB; AAN00003.
XX
PT   Recombinant DNA coding for polypeptide - have specificity of hepatitis B
PT   viral antigens in detection or antibody stimulation (PT 19.6.80).
XX
PS   Example; Fig 6-8; 43pp; English.
XX
CC   Human serum from a single HBsAg positive, HBeAg positive donor (serotype
CC   adym) was used to prep. a DNA-contg. pellet which was labelled with 3H or
CC   32P as described by P. M. Kaplan et al (1973). The labelled DNA was then
CC   extracted with phenol from the resulting pellet using the procedure of L.
CC   I. Lutwick and W. S. Robinson (1977). It was then cloned in plasmid
CC   pBR322 which was used to transform E. coli. Micro-organisms prepd. by the
CC   processes are deposited at the NCIB as pBR322-HBV-G-L, e.g. E. coli
CC   HB101/pBR322-Pst I dG: HBV-Kpn I dC: TetR AmpS HBV+. (Updated on 25-MAR-
CC   2003 to correct PR field.)
XX
SQ   Sequence 226 AA;

  AAP00042  Length: 226  May 13, 2004 16:42  Type: P  Check: 1429  ..

       1  MENITSAFLG PLLVLQAGFF LLTRILTIPQ SLDSWWTSLN FLGGTTVCLG

      51  QNSQSPISNH SPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY

     101  QGMLPVCPLI PGSSTTSTGS CRTCTTPAQG ISMYPSCCCT KPSDGNCTCI

     151  PIPSSWAFGK FLWEWASARF SWLSLLVPFV QWFVGLSPIV WLSVIWMMWY

     201  WGPSLYSILS PFLPLLPIFF CLWAYI

!!AA_SEQUENCE 1.0
ID   AAP00041 standard; protein; 183 AA.
XX
AC   AAP00041;
XX
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of core antigen.
XX
KW   Hepatitis B virus; antigen; antibody; diagnosis; vaccine.
XX
OS   Hepatitis B virus.
XX
PN   EP13828-A.
XX
PD   06-AUG-1980.
XX
PF   22-DEC-1978;   78GB-00049901.
XX
PR   22-DEC-1978;   78GB-00049901.
PR   22-DEC-1978;   78GB-00049907.
PR   27-DEC-1978;   78GB-00050039.
PR   28-DEC-1978;   85EP-00201908.
PR   01-NOV-1979;   79GB-00037910.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Murray K,  Schaller HE;
XX
DR   WPI; 1980-57268C/33.
DR   N-PSDB; AAN00003.
XX
PT   Recombinant DNA coding for polypeptide - have specificity of hepatitis B
PT   viral antigens in detection or antibody stimulation (PT 19.6.80).
XX
PS   Example; Fig 3-4; 43pp; English.
XX
CC   Human serum from a single HBsAg positive, HBeAg positive donor (serotype
CC   adym) was used to prep. a DNA-contg. pellet which was labelled with 3H or
CC   32P as described by P. M. Kaplan et al (1973). The labelled DNA was then
CC   extracted with phenol from the resulting pellet using the procedure of L.
CC   I. Lutwick and W. S. Robinson (1977). It was then cloned in plasmid
CC   pBR322 which was used to transform E. coli. Micro-organisms prepd. by the
CC   processes are deposited at the NCIB as pBR322-HBV-G-L, e.g. E. coli
CC   HB101/pBR322-Pst I dG: HBV-Kpn I dC: TetR AmpS HBV+. (Updated on 25-MAR-
CC   2003 to correct PR field.)
XX
SQ   Sequence 183 AA;

  AAP00041  Length: 183  May 13, 2004 16:42  Type: P  Check: 1824  ..

       1  MDIDPYKEFG ATVELLSFLP SDFFPSVRDL LDTAAALYRD ALESPEHCSP

      51  HHTALRQAIL CWGDLMTLAT WVGTNLEDPA SRDLVVSYVN TNVGLKFRQL

     101  LWFHISCLTF GRETVLEYLV SFGVWIRTPP AYRPPNAPIL STLPETTVVR

     151  RRGRSPRRRT PSPRRRRSQS PRRRRSQSRE SQC

!!AA_SEQUENCE 1.0
ID   AAP00006 standard; protein; 27 AA.
XX
AC   AAP00006;
XX
DT   25-MAR-2003  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence encoded by leader sequence of core antigen.
XX
KW   Hepatitis B virus; antigen; antibody; diagnosis; vaccine.
XX
OS   Hepatitis B virus.
XX
PN   EP13828-A.
XX
PD   06-AUG-1980.
XX
PF   22-DEC-1978;   78GB-00049901.
XX
PR   22-DEC-1978;   78GB-00049901.
PR   22-DEC-1978;   78GB-00049907.
PR   27-DEC-1978;   78GB-00050039.
PR   28-DEC-1978;   85EP-00201908.
PR   01-NOV-1979;   79GB-00037910.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Murray K,  Schaller HE;
XX
DR   WPI; 1980-57268C/33.
DR   N-PSDB; AAN00003.
XX
PT   Recombinant DNA coding for polypeptide - have specificity of hepatitis B
PT   viral antigens in detection or antibody stimulation (PT 19.6.80).
XX
PS   Example; Fig 3; 43pp; English.
XX
```

```
CC   Human serum from a single HBsAg positive, HBeAg positive donor (serotype
CC   adym) was used to prep. a DNA-contg. pellet which was labelled with 3H or
CC   32P as described by P. M. Kaplan et al (1973). The labelled DNA was then
CC   extracted with phenol from the resulting pellet using the procedure of L.
CC   I. Lutwick and W. S. Robinson (1977). It was then cloned in plasmid
CC   pBR322 which was used to transform E. coli. Micro-organisms prepd. by the
CC   processes are deposited at the NCIB as pBR322-HBV-G-L, e.g. E. coli
CC   HB101/pBR322-Pst I dG: HBV-Kpn I dC: TetR AmpS HBV+. (Updated on 25-MAR-
CC   2003 to correct PR field.)
XX
SQ   Sequence 27 AA;

   AAP00006  Length: 27  May 13, 2004 16:42  Type: P  Check: 8795  ..

       1  GGLFHLCLII SCSCPTVQAS KLCLGWL

!!AA_SEQUENCE 1.0
ID   AAP10149 standard; peptide; 12 AA.
XX
AC   AAP10149;
XX
DT   19-OCT-1992  (first entry)
XX
DE   Sequence of peptides with biological activity of thymopoietin II.
XX
KW   T-lymphocyte differentiation; thymopoietin II;
KW   Di George syndrome therapy.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .3
FT                   /label= R1
FT                   /note= "R1 = Q, EQ, GEQ"
FT   Region          4. .8
FT                   /label= active peptide
FT   Misc-difference 9. .12
FT                   /note= "OH; V, VQ, VQL if R1 = GEQ, Q; VQLY if R1 = GRQ"
XX
PN   US4258152-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631175.
XX
PR   11-NOV-1975;   75US-00631175.
PR   15-NOV-1977;   77US-00851777.
PR   26-JAN-1979;   79US-00006893.
PR   12-JUN-1979;   79US-00047909.
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27190D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes but not complement receptor B
PT   lymphocytes.
XX
PS   Claim 1; Col 16; 9pp; English.
XX
CC   The active peptide in AAP10149 has been found to exhibit characteristics
CC   similar to the 49 AA polypeptide isolated from bovine thymus as disclosed
CC   in US Pat. No. 4,077,949. Residues 1-3 and 9-12 do not substantially
CC   affect the biological activity of the basic active sequence. Studies of
CC   these synthetic peptides showed them to have the same induction
CC   specificity as Thymopoietin II. That is, they induced the differentiation
CC   of Thy-1- cells to Thy-1+ cells, but did not induce the differentiation
CC   of CR- cells to CR+ cells. These synthetic peptides were also shown to
CC   affect neuromuscular transmission,like Thymopoietin itself
XX
SQ   Sequence 12 AA;

   AAP10149  Length: 12  May 13, 2004 16:42  Type: P  Check: 6365  ..

       1  GEQRKDVYVQ LY

!!AA_SEQUENCE 1.0
ID   AAP10038 standard; protein; 14 AA.
XX
AC   AAP10038;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence encoded by the pKT241 EcoRI-PstI penicillinase gene fragment.
XX
KW   Cloning vehicle; bacterial vector; transformed host; penicillinase;
KW   insulin.
XX
OS   Escherichia coli.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= fM
XX
PN   EP38182-A.
XX
PD   21-OCT-1981.
XX
PF   09-APR-1981;   81EP-00301561.
XX
PR   11-APR-1980;   80US-00139225.
XX
PA   (HARD ) HARVARD COLLEGE.
XX
PI   Gilbert W,  Talmadge K;
XX
DR   WPI; 1981-80125D/44.
DR   N-PSDB; AAN10031.
XX
PT   Synthesis of mature protein or polypeptide - by using bacterial host
PT   transformed by cloned vehicle contg. DNA fragment etc.
XX
PS   Example; Fig 2; 34pp; English.
XX
CC   The closest identifiable promoter for the penicilinase gene in pKT241
CC   (AAN10031) is located in the region 14 to 20 nucleotides before its
CC   translational start signal. In the examples, the 3' end of pKT241 was
CC   attached to the signal DNA sequence of the DNA fragment (19) for rat
CC   preproinsulin (see AAN10033). The closest identifiable promoter for the
CC   penicillinase gene in pKT218 (AAN10032) is located in the region 14 to 20
CC   nucleotides before its translational start signal. In the examples, the
CC   3' end of pKT218 was attached to the signal DNA sequence of the DNA
CC   fragment (CB6) for rat preproinsulin (see AAN10034)
XX
SQ   Sequence 14 AA;

   AAP10038  Length: 14  May 13, 2004 16:42  Type: P  Check: 8058  ..

       1  MSIQHFRVAL IPLQ

!!AA_SEQUENCE 1.0
ID   AAP10039 standard; protein; 6 AA.
XX
AC   AAP10039;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence encoded by the pKT218 EcoRI-PstI penicillinase gene fragment.
XX
KW   Cloning vehicle; bacterial vector; transformed host; penicillinase;
KW   insulin.
XX
OS   Escherichia coli.
XX
```

```
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= fM
XX
PN   EP38182-A.
XX
PD   21-OCT-1981.
XX
PF   09-APR-1981;   81EP-00301561.
XX
PR   11-APR-1980;   80US-00139225.
XX
PA   (HARD ) HARVARD COLLEGE.
XX
PI   Gilbert W,  Talmadge K;
XX
DR   WPI; 1981-80125D/44.
DR   N-PSDB; AAN10032.
XX
PT   Synthesis of mature protein or polypeptide - by using bacterial host
PT   transformed by cloned vehicle contg. DNA fragment etc.
XX
PS   Example; Fig 3; 34pp; English.
XX
CC   The closest identifiable promoter for the penicilinase gene in pKT241
CC   (AAN10031) is located in the region 14 to 20 nucleotides before its
CC   translational start signal. In the examples, the 3' end of pKT241 was
CC   attached to the signal DNA sequence of the DNA fragment (19) for rat
CC   preproinsulin (see AAN10033). The closest identifiable promoter for the
CC   penicillinase gene in pKT218 (AAN10032) is located in the region 14 to 20
CC   nucleotides before its translational start signal. In the examples, the
CC   3' end of pKT218 was attached to the signal DNA sequence of the DNA
CC   fragment (CB6) for rat preproinsulin (see AAN10034)
XX
SQ   Sequence 6 AA;

   AAP10039  Length: 6  May 13, 2004 16:42  Type: P  Check: 1501  ..

       1  MSIQAA

!!AA_SEQUENCE 1.0
ID   AAP10041 standard; protein; 26 AA.
XX
AC   AAP10041;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence encoded by the 5' end of Pst-Cut rat preproinsulin gene fragment
DE   CB6.
XX
KW   Cloning vehicle; bacterial vector; transformed host; penicillinase;
KW   insulin.
XX
OS   Escherichia coli.
XX
FH   Key             Location/Qualifiers
FT   Peptide         4. .24
FT                   /label= signal
XX
PN   EP38182-A.
XX
PD   21-OCT-1981.
XX
PF   09-APR-1981;   81EP-00301561.
XX
PR   11-APR-1980;   80US-00139225.
XX
PA   (HARD ) HARVARD COLLEGE.
XX
PI   Gilbert W,  Talmadge K;
XX
DR   WPI; 1981-80125D/44.
DR   N-PSDB; AAN10034.
XX
PT   Synthesis of mature protein or polypeptide - by using bacterial host
PT   transformed by cloned vehicle contg. DNA fragment etc.
XX
PS   Example; Fig 5; 34pp; English.
XX
CC   The closest identifiable promoter for the penicilinase gene in pKT241
CC   (AAN10031) is located in the region 14 to 20 nucleotides before its
CC   translational start signal. In the examples, the 3' end of pKT241 was
CC   attached to the signal DNA sequence of the DNA fragment (19) for rat
CC   preproinsulin (see AAN10033). The closest identifiable promoter for the
CC   penicillinase gene in pKT218 (AAN10032) is located in the region 14 to 20
CC   nucleotides before its translational start signal. In the examples, the
CC   3' end of pKT218 was attached to the signal DNA sequence of the DNA
CC   fragment (CB6) for rat preproinsulin (see AAN10034)
XX
SQ   Sequence 26 AA;

   AAP10041  Length: 26  May 13, 2004 16:42  Type: P  Check: 6645  ..

       1  AAGWMRFLPL LALLVLWEPK PAQAFV

!!AA_SEQUENCE 1.0
ID   AAP10040 standard; protein; 30 AA.
XX
AC   AAP10040;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence encoded by the 5' end of Pst-Cut rat preproinsulin gene fragment
DE   19.
XX
KW   Cloning vehicle; bacterial vector; transformed host; penicillinase;
KW   insulin.
XX
OS   Escherichia coli.
XX
FH   Key             Location/Qualifiers
FT   Peptide         8. .28
FT                   /label= signal
XX
PN   EP38182-A.
XX
PD   21-OCT-1981.
XX
PF   09-APR-1981;   81EP-00301561.
XX
PR   11-APR-1980;   80US-00139225.
XX
PA   (HARD ) HARVARD COLLEGE.
XX
PI   Gilbert W,  Talmadge K;
XX
DR   WPI; 1981-80125D/44.
DR   N-PSDB; AAN10033.
XX
PT   Synthesis of mature protein or polypeptide - by using bacterial host
PT   transformed by cloned vehicle contg. DNA fragment etc.
XX
PS   Example; Fig 4; 34pp; English.
XX
CC   The closest identifiable promoter for the penicilinase gene in pKT241
CC   (AAN10031) is located in the region 14 to 20 nucleotides before its
CC   translational start signal. In the examples, the 3' end of pKT241 was
CC   attached to the signal DNA sequence of the DNA fragment (19) for rat
CC   preproinsulin (see AAN10033). The closest identifiable promoter for the
CC   penicillinase gene in pKT218 (AAN10032) is located in the region 14 to 20
CC   nucleotides before its translational start signal. In the examples, the
CC   3' end of pKT218 was attached to the signal DNA sequence of the DNA
CC   fragment (CB6) for rat preproinsulin (see AAN10034)
XX
SQ   Sequence 30 AA;
```

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   AAP10040  Length: 30  May 13, 2004 16:42  Type: P  Check: 5294  ..

       1  LQGGGGGWMR FLPLLALLVL WEPKPAQAFV

!!AA_SEQUENCE 1.0
ID   AAP10344 standard; peptide; 14 AA.
XX
AC   AAP10344;
XX
DT   25-MAR-2003  (revised)
DT   15-DEC-1992  (first entry)
XX
DE   Somatostatin deriv. A58.
XX
KW   Growth Hormone secretion; GH; diabetes mellitus; angiopathy; acromegaly;
KW   diagnosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "(4Cl)Phe"
FT   Modified-site   3
FT                   /label= Nle
FT   Misc-difference 14
FT                   /note= "Glutaminol"
XX
PN   CH621770-A.
XX
PD   27-FEB-1981.
XX
PF   23-FEB-1976;   76CH-00002175.
XX
PR   23-FEB-1976;   76CH-00002175.
XX
PA   (SANO ) SANDOZ AG.
XX
PI   Sandrin E,  Bauer W;
XX
DR   WPI; 1981-21515D/13.
XX
PT   Somatostatin derivs. prodn. - useful for treating diabetes, acromegalia
PT   and angiopathia.
XX
PS   Example 1; Page 7; 8pp; German.
XX
CC   This peptide is an example of a generic formula for somatostatin derivs.
CC   which inhibit secretion of growth hormone and are useful to treat
CC   diabetes mellitus, acromegaly, angiopathy and in diagnosis. See AAP10308-
CC   P10348. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 14 AA;

   AAP10344  Length: 14  May 13, 2004 16:42  Type: P  Check: 8140  ..

       1  FCXNFFWKTF TSCQ

!!AA_SEQUENCE 1.0
ID   AAP10320 standard; peptide; 13 AA.
XX
AC   AAP10320;
XX
DT   25-MAR-2003  (revised)
DT   15-DEC-1992  (first entry)
XX
DE   Somatostatin deriv. A16.
XX
KW   Growth Hormone secretion; GH; diabetes mellitus; angiopathy; acromegaly;
KW   diagnosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "acylated with Ph-(CH2)3-CO- or Ph-NH-CO-"
FT   Modified-site   3
FT                   /label= Nle
FT   Modified-site   13
FT                   /note= "amidated"
XX
PN   CH621770-A.
XX
PD   27-FEB-1981.
XX
PF   23-FEB-1976;   76CH-00002175.
XX
PR   23-FEB-1976;   76CH-00002175.
XX
PA   (SANO ) SANDOZ AG.
XX
PI   Sandrin E,  Bauer W;
XX
DR   WPI; 1981-21515D/13.
XX
PT   Somatostatin derivs. prodn. - useful for treating diabetes, acromegalia
PT   and angiopathia.
XX
PS   Example 1; Page 5; 8pp; German.
XX
CC   This peptide is an example of a generic formula for somatostatin derivs.
CC   which inhibit secretion of growth hormone and are useful to treat
CC   diabetes mellitus, acromegaly, angiopathy and in diagnosis. See AAP10308-
CC   P10348. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 13 AA;

   AAP10320  Length: 13  May 13, 2004 16:42  Type: P  Check: 7019  ..

       1  GCXQFFWKTF TSC

!!AA_SEQUENCE 1.0
ID   AAP10310 standard; peptide; 12 AA.
XX
AC   AAP10310;
XX
DT   25-MAR-2003  (revised)
DT   15-DEC-1992  (first entry)
XX
DE   N-terminally protected-Somatostatin deriv.
XX
KW   Growth Hormone secretion; GH; diabetes mellitus; angiopathy; acromegaly;
KW   diagnosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Ph-NH-CO-Cys"
FT   Modified-site   12
FT                   /note= "opt. amidated"
XX
PN   CH621770-A.
XX
PD   27-FEB-1981.
XX
PF   23-FEB-1976;   76CH-00002175.
XX
PR   23-FEB-1976;   76CH-00002175.
XX
PA   (SANO ) SANDOZ AG.
XX
PI   Sandrin E,  Bauer W;
XX
DR   WPI; 1981-21515D/13.
XX
```

PT Somatostatin derivs. prodn. - useful for treating diabetes, acromegalia
PT and angiopathia.
XX
PS Example 1; Page 5; 8pp; German.
XX
CC This peptide is an example of a generic formula for somatostatin derivs.
CC which inhibit secretion of growth hormone and are useful to treat
CC diabetes mellitus, acromegaly, angiopathy and in diagnosis. See AAP10308-
CC P10348. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ Sequence 12 AA;

AAP10310 Length: 12 May 13, 2004 16:42 Type: P Check: 5996 ..

1 CKQFFWKTFT SC

!!AA_SEQUENCE 1.0
ID AAP10389 standard; protein; 4 AA.
XX
AC AAP10389;
XX
DT 25-MAR-2003 (revised)
DT 17-DEC-1992 (first entry)
XX
DE Analgesic tetrapeptide semicarbazide derivative #3.
XX
KW neurotropic; enkephalin analogue; low sodium; Na; antidiarrheals;
KW antidiarrhoeals; strong gastrointestinal motility inhibition; painkiller.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 1
FT /label= OTHER
FT /note= "hydrogen or lower alkyl substituted"
FT Misc-difference 2
FT /label= OTHER
FT /note= "D-alpha glutamine"
FT Misc-difference 4
FT /label= OTHER
FT /note= "Substituted with H or lower alkyl on N, and
FT NHNHCXNH2 at the CO terninal, where X is O or S."
XX
PN EP31567-A.
XX
PD 08-JUL-1981.
XX
PF 27-DEC-1979; 79JP-00173608.
XX
PR 27-DEC-1979; 79JP-00173608.
XX
PA (TAKE) TAKEDA YAKUHIN KOGYO KK.
XX
PI Masahiko F, Mitsuhiro W, Kiyohisa K;
XX
DR WPI; 1981-51916D/29.
XX
PT Tetra:peptide semicarbazide derivs. - useful as analgesics, neurotropic
PT agents and inhibitors of gastrointestinal motility.
XX
PS Claim 3; Page 34; 36pp; English.
XX
CC This sequence represents one of several analgesic tetrapeptide
CC semicarbazide derivatives . They may have neurotropic activity and a very
CC low sodium ratio. They are also strong gastrointestinal motility
CC inhibitors ans so are antidiarrheals. They have low toxicity (no deaths
CC at 200mg/kg). Some of these compounds bearing protecting groups may be
CC used as analgesics. See also AAP10386-92. (Updated on 25-MAR-2003 to
CC correct PA field.)
XX
SQ Sequence 4 AA;

AAP10389 Length: 4 May 13, 2004 16:42 Type: P Check: 744 ..

1 YQGF

!!AA_SEQUENCE 1.0
ID AAP10420 standard; protein; 45 AA.
XX
AC AAP10420;
XX
DT 25-MAR-2003 (revised)
DT 17-DEC-1992 (first entry)
XX
DE Anticancer compsn. SP2.
XX
KW Erlich ascites carcinoma; EAC; lymphatic leukaemia L1210; Sarcoma 180A.
XX
OS Zea mays.
XX
FH Key Location/Qualifiers
FT Disulfide-bond 3. .39
FT Disulfide-bond 4. .31
FT Disulfide-bond 12. .29
FT Disulfide-bond 16. .25
XX
PN JP56077228-A.
XX
PD 25-JUN-1981.
XX
PF 29-NOV-1979; 79JP-00155077.
XX
PR 29-NOV-1979; 79JP-00155077.
XX
PA (SUNC) SUN CHEM CORP.
XX
DR WPI; 1981-59308D/33.
XX
PT Anticancer compsn. - contg. polypeptide and thymidine as active
PT components.
XX
PS Claim 1; Page 1; 7pp; Japanese.
XX
CC The sequences given in AAP10419-20 are polypeptides which can be used in
CC an anticancer compsn. with thymidine.They are both widespread in wheats.
CC They exhibit inhibitory activity against Erlich ascites carcinoma (EAC),
CC lymphatic leukaemia L1210 and Sarcoma 180A. Combination use of thymidine
CC greatly enhances the anticancer activity of SP1 and SP2. (Updated on 25-
CC MAR-2003 to correct PA field.)
XX
SQ Sequence 45 AA;

AAP10420 Length: 45 May 13, 2004 16:42 Type: P Check: 7637 ..

1 KSCCRSTLGR NCYNLCRARG AQKLCAGVCR CKISSGLSCP KGFPK

!!AA_SEQUENCE 1.0
ID AAP10419 standard; peptide; 45 AA.
XX
AC AAP10419;
XX
DT 25-MAR-2003 (revised)
DT 17-DEC-1992 (first entry)
XX
DE Anticancer compsn. SP1.
XX
KW Erlich ascites carcinoma; EAC; lymphatic leukaemia L1210; Sarcoma 180A.
XX
OS Zea mays.
XX
FH Key Location/Qualifiers
FT Disulfide-bond 3. .39
FT Disulfide-bond 4. .31
FT Disulfide-bond 12. .29
FT Disulfide-bond 16. .25
XX

```
PN   JP56077228-A.
XX
PD   25-JUN-1981.
XX
PF   29-NOV-1979;   79JP-00155077.
XX
PR   29-NOV-1979;   79JP-00155077.
XX
PA   (SUNC ) SUN CHEM CORP.
XX
DR   WPI; 1981-59308D/33.
XX
PT   Anticancer compsn. - contg. polypeptide and thymidine as active
PT   components.
XX
PS   Claim 1; Page 1; 7pp; Japanese.
XX
CC   The sequences given in AAP10419-20 are polypeptides which can be used in
CC   an anticancer compsn. with thymidine.They are both widespread in wheats.
CC   They exhibit inhibitory activity against Erlich ascites carcinoma (EAC),
CC   lymphatic leukaemia L1210 and Sarcoma 180A. Combination use of thymidine
CC   greatly enhances the anticancer activity of SP1 and SP2. (Updated on 25-
CC   MAR-2003 to correct PA field.)
XX
SQ   Sequence 45 AA;

   AAP10419  Length: 45  May 13, 2004 16:42  Type: P  Check: 7528  ..

       1  KSCCKSTLGR NCYNLCRARG AQKLCADVCR CKLTSGLSCP KDFPK

!!AA_SEQUENCE 1.0
ID   AAP10170 standard; peptide; 7 AA.
XX
AC   AAP10170;
XX
DT   27-AUG-2003  (revised)
DT   19-AUG-1992  (first entry)
XX
DE   Sequence which corresp. to AAs 325-332 of the C4 isozyme of lactate
DE   dehydrogenase found in mammalian sperm.
XX
KW   Vaccine; contraceptive; fertility reduction.
XX
OS   Mammalia.
XX
PN   US4290944-A.
XX
PD   22-SEP-1981.
XX
PF   31-JUL-1980;   80US-00174011.
XX
PR   31-JUL-1980;   80US-00174011.
XX
PA   (NOUN ) UNIV NORTHWESTERN.
PA   (GOLD/) GOLDBERG E.
XX
PI   Goldberg E;
XX
DR   WPI; 1981-75566D/41.
XX
PT   Antigenic linear hexa:peptide - useful for conjugation to protein carrier
PT   for vaccine to reduce fertility of mammals.
XX
PS   Claim 1; Col 4; 3pp; English.
XX
CC   The peptide of the invention is an antigen for use in a vaccine for
CC   reducing the fertility of mammals. It is conjugated to a carrier
CC   molecule, pref. a protein which itself elicits an antigenic response and
CC   can be safely administered, e.g. to tetanus toxoid for intramuscular
CC   admin., pref. to human females, when antibodies are formed and appear in
CC   the oviduct fluid. Dose is 1-10 mg. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 7 AA;

   AAP10170  Length: 7  May 13, 2004 16:42  Type: P  Check: 2062  ..

       1  MQKDLEL

!!AA_SEQUENCE 1.0
ID   AAP10528 standard; peptide; 9 AA.
XX
AC   AAP10528;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Desamino [2-Phe, 8-N-Lys(GlyGlyGly), 9-D-Ala]-Vasopressin.
XX
KW   Hormonogen; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Modified-site   1
FT                   /note= "desamino Cys"
FT   Modified-site   8
FT                   /note= "N-substd. with GlyGlyGly on side chain"
FT   Modified-site   9
FT                   /note= "amidated D-Ala"
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 12; Page 18; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, and is
CC   long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptides may be used
CC   in the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-27
XX
SQ   Sequence 9 AA;

   AAP10528  Length: 9  May 13, 2004 16:42  Type: P  Check: 3316  ..

       1  CYFQNCPKA

!!AA_SEQUENCE 1.0
ID   AAP10526 standard; peptide; 9 AA.
XX
AC   AAP10526;
XX
DT   22-DEC-1992  (first entry)
```

```
XX
DE   Desamino -[2-Phe, 8-N-gamma-Orn(Gly)]-Vasopressin.
XX
KW   Hormonogen; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia; hormonogen.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Modified-site   1
FT                   /note= "desamino Cys"
FT   Misc-difference 8
FT                   /label= OTHER
FT                   /note= "OTHER= Orn N-gamma substd. with  Gly"
FT   Modified-site   9
FT                   /note= "amidated"
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 9; Page 17; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, and is
CC   long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptides may be used
CC   in the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-28
XX
SQ   Sequence 9 AA;

  AAP10526  Length: 9  May 13, 2004 16:42  Type: P  Check: 3436  ..

     1  CFFQNCPXG

!!AA_SEQUENCE 1.0
ID   AAP10522 standard; peptide; 9 AA.
XX
AC   AAP10522;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Desamino [8-N-Lys(GlyGlyGly)]-Vassopressin.
XX
KW   Hormonogen; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Modified-site   1
FT                   /note= "desamino Cys"
FT   Modified-site   8
FT                   /note= "N-substd. with a GlyGlyGly on side chain"
FT   Modified-site   9
FT                   /note= "amidated"
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 2; Page 11; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, and is
CC   long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptides may be used
CC   in the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-28
XX
SQ   Sequence 9 AA;

  AAP10522  Length: 9  May 13, 2004 16:42  Type: P  Check: 3370  ..

     1  CYFQNCPKG

!!AA_SEQUENCE 1.0
ID   AAP10524 standard; peptide; 9 AA.
XX
AC   AAP10524;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Desamino-1-monocarba-[7-thioPro, 8-N-Lys(Leu)]-Vassopressin.
XX
KW   Hormonogen; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia; thioether linkage.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= OTHER
FT                   /note= "OTHER= des amino Abu condensed with Cys of
FT                   position 6 to form a thioether linkage (CH2-S)"
FT   Modified-site   6
FT                   /note= "condensed onto the omega gp. of des amino Abu at
FT                   position 1 to form a thioether linkage"
FT   Modified-site   7
FT                   /label= OTHER
FT                   /note= "OTHER= 4-thioPro"
FT   Modified-site   8
FT                   /note= "N-substd. with Leu on side chain"
FT   Modified-site   9
FT                   /note= "amidated"
```

```
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 4; Page 13; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, which
CC   is long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptide may be used in
CC   the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-28
XX
SQ   Sequence 9 AA;

  AAP10524  Length: 9  May 13, 2004 16:42  Type: P  Check: 3391  ..

      1  XYFQNCPKG

!!AA_SEQUENCE 1.0
ID   AAP10521 standard; peptide; 9 AA.
XX
AC   AAP10521;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Desamino [2-Phe, 8-N-Lys(Gly)]-Vasopressin.
XX
KW   Hormonogen; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Modified-site   1
FT                   /note= "desamino Cys"
FT   Modified-site   8
FT                   /note= "N-substd. with a Gly on side chain"
FT   Modified-site   9
FT                   /note= "amidated"
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 1; Page 6; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, and is
CC   long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptides may be used
CC   in the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-28
XX
SQ   Sequence 9 AA;

  AAP10521  Length: 9  May 13, 2004 16:42  Type: P  Check: 3332  ..

      1  CFFQNCPKG

!!AA_SEQUENCE 1.0
ID   AAP10523 standard; peptide; 9 AA.
XX
AC   AAP10523;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Desamino -[8-D-N-Lys(Gly)]-Vasotocin.
XX
KW   Vasopressin; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia; hormonogen.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Modified-site   1
FT                   /note= "desamino Cys"
FT   Modified-site   8
FT                   /note= "D-Lys N-substd. with a Gly on side chain"
FT   Modified-site   9
FT                   /note= "amidated"
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 3; Page 13; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, and is
CC   long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
```

```
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptides may be used
CC   in the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-28
XX
SQ   Sequence 9 AA;

  AAP10523  Length: 9  May 13, 2004 16:42  Type: P  Check: 3379  ..

      1  CYIQNCPKG

!!AA_SEQUENCE 1.0
ID   AAP10527 standard; peptide; 9 AA.
XX
AC   AAP10527;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Desamino [2-Phe, 8-N-Lys(Gly), 9-D-Ala]-Vasopressin.
XX
KW   Hormonogen; analogue; antidiuretic; pressor; blood pressure; shock;
KW   factor VIII; menorrhagia.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Modified-site   1
FT                   /note= "desamino Cys"
FT   Modified-site   8
FT                   /note= "N-substd. with a Gly on side chain"
FT   Modified-site   9
FT                   /note= "amidated D-Ala"
XX
PN   EP37516-A.
XX
PD   14-OCT-1981.
XX
PF   24-MAR-1981;   81EP-00102217.
XX
PR   24-MAR-1980;   80US-00132864.
PR   03-FEB-1981;   81US-00231149.
XX
PA   (VEGA-) VEGA LABS INC.
XX
PI   Cort JJ,  Fischman AH;
XX
DR   WPI; 1981-78018D/43.
XX
PT   Hormonogen forms of vasopressin and its synthetic analogues - useful for
PT   prolonged anti-diuretic and pressor activities etc.
XX
PS   Example 11; Page 17; 31pp; English.
XX
CC   The peptide is a specific example of an analogues of vasopressin, and is
CC   long-acting and has greater activity than known long acting hormogens.
CC   The peptide is resistant to enzymatic cleavage, esp. by trypsin like
CC   enzymes. The peptide may be cleaved by aminopeptidases to release
CC   vasopressin or its analogues, which have antidiuretic and pressor
CC   activity and Factor VIII releasing properties. The peptides may be used
CC   in the treatment of shock, gastrointestinal bleeding, uterine bleeding,
CC   burns, interference with gravidity, haematuria, pancreatic diseases and
CC   menorrhagia related to low Factor VIII levels in women with von
CC   Willebrand's disease. The peptide may be prepd. by conventional peptide
CC   synthesis techniques. See also AAP10518-28
XX
SQ   Sequence 9 AA;

  AAP10527  Length: 9  May 13, 2004 16:42  Type: P  Check: 3278  ..

      1  CFFQNCPKA

!!AA_SEQUENCE 1.0
ID   AAP10021 standard; protein; 189 AA.
XX
AC   AAP10021;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of interferon (IFN) -alpha-4b.
XX
KW   Anti-viral agent; anti-cancer agent; therapy; tumour.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   EP32134-A.
XX
PD   15-JUL-1981.
XX
PF   07-JAN-1981;   81EP-00300050.
XX
PR   08-JAN-1980;   80EP-00300079.
PR   03-APR-1980;   80EP-00301100.
PR   02-OCT-1980;   80GB-00031737.
XX
PA   (BIOJ ) BIOGEN NV.
XX
PI   Weissmann C;
XX
DR   WPI; 1981-53697D/30.
DR   N-PSDB; AAN10014.
XX
PT   DNA sequences coding for interferon-like polypeptide(s) - useful as
PT   antiviral or antitumour agents.
XX
PS   Claim 24; Fig 29-32; 136pp; English.
XX
CC   The inventors claim DNA sequences coding for interferon-like
CC   polypeptide(s). The DNA sequences pref. encode IFN-alpha type 1, 2, 4a
CC   and 4b. Pref. DNA sequences which hybridise to the inserts of Z-
CC   pBR322(Pst)/HcIF-4c, Z-pBR322(Pst)/HcIF-2h, Z-pBR322(Pst)/HcIF-SN35, Z-
CC   pBR322(Pst)/HcIF-SN42 and ZpKT287(Pst),/HcIF-2h-AH6 comprise Z-
CC   pBR322(Pst)/HcIF-II-206, Z-pBR322(Pst)/HcIF-SN35-AHL6, and Hif-chr1, -3,
CC   -12, -13, -16-1, -26, -30, -35, -19 and -27. Pref. recombinant DNA
CC   molecules are C8-IFN-alpha-1, C8-IFN-alpha-2, LAC-AUG(alpha-2) and beta-
CC   lac-AUG(alpha-2). A comparison of the nucleotide sequence of the coding
CC   region of HchrIF-35HB-alpha and that of Hif-2h (coding region) reveals
CC   that they are identical
XX
SQ   Sequence 189 AA;

  AAP10021  Length: 189  May 13, 2004 16:42  Type: P  Check: 3928  ..

      1  MALSFSLLMA VLVLSYKSIC SLGCDLPQTH SLGNRRTLIL LQQMGRISHF

     51  SCLKDRHDFG FPEEEFDGHQ FQKTQAISVL HEMIQQTFNL FSTEDSSAAW

    101  EQSLLEKFST ELYQQLNDLE ACVIQEVGVE ETPLMNVDSI LAVRKYFQRI

    151  TLYLTEKKYS PCAWEVVRAE IMRSLSFSTN LQKRLRRKD

!!AA_SEQUENCE 1.0
ID   AAP10020 standard; protein; 189 AA.
XX
AC   AAP10020;
XX
DT   13-AUG-1992  (first entry)
XX
```

```
DE   Sequence of interferon (IFN) -alpha-1 endode by the HchrIF-35HBx
DE   fragment.
XX
KW   Anti-viral agent; anti-cancer agent; therapy; tumour.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   EP32134-A.
XX
PD   15-JUL-1981.
XX
PF   07-JAN-1981;    81EP-00300050.
XX
PR   08-JAN-1980;    80EP-00300079.
PR   03-APR-1980;    80EP-00301100.
PR   02-OCT-1980;    80GB-00031737.
XX
PA   (BIOJ ) BIOGEN NV.
XX
PI   Weissmann C;
XX
DR   WPI; 1981-53697D/30.
DR   N-PSDB; AAN10013.
XX
PT   DNA sequences coding for interferon-like polypeptide(s) - useful as
PT   antiviral or antitumour agents.
XX
PS   Claim 22; Fig 20-23; 136pp; English.
XX
CC   The inventors claim DNA sequences coding for interferon-like
CC   polypeptide(s). The DNA sequences pref. encode IFN-alpha type 1, 2, 4a
CC   and 4b. Pref. DNA sequences which hybridise to the inserts of Z-
CC   pBR322(Pst)/HcIF-4c, Z-pBR322(Pst)/HcIF-2h, Z-pBR322(Pst)/HcIF-SN35, Z-
CC   pBR322(Pst)/HcIF-SN42 and ZpKT287(Pst)/HcIF-2h-AH6 comprise Z-
CC   pBR322(Pst)/HcIF-II-206, Z-pBR322(Pst)/HcIF-SN35-AHL6, and Hif-chr1, -3,
CC   -12, -13, -16-1, -26, -30, -35, -19 and -27. Pref. recombinant DNA
CC   molecules are C8-IFN-alpha-1, C8-IFN-alpha-2, LAC-AUG(alpha-2) and beta-
CC   lac-AUG(alpha-2). A comparison of the nucleotide sequence of the coding
CC   region of HchrIF-35HB-alpha and that of Hif-2h (coding region) reveals
CC   that they are identical
XX
SQ   Sequence 189 AA;

  AAP10020  Length: 189  May 13, 2004 16:42  Type: P  Check: 1503  ..

       1  MASPFALLMV LVVLSCKSSC SLGCDLPETH SLDNRRTLML LAQMSRISPS

      51  SCLMDRHDFG FPQEEFDGNQ FQKAPAISVL HELIQQIFNL FTTKDSSAAW

     101  DEDLLDKFCT ELYQQLNDLE ACVMQEERVG ETPLMNADSI LAVKKYFRRI

     151  TLYLTEKKYS PCAWEVVRAE IMRSLSLSTN LQERLRRKE

!!AA_SEQUENCE 1.0
ID   AAP10017 standard; protein; 189 AA.
XX
AC   AAP10017;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of interferon (IFN) -alpha-1 encoded by the Hif-2h fragment of
DE   culture HcIF-E.
XX
KW   Anti-viral agent; anti-cancer agent; therapy; tumour.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   EP32134-A.
XX
PD   15-JUL-1981.
XX
PF   07-JAN-1981;    81EP-00300050.
XX
PR   08-JAN-1980;    80EP-00300079.
PR   03-APR-1980;    80EP-00301100.
PR   02-OCT-1980;    80GB-00031737.
XX
PA   (BIOJ ) BIOGEN NV.
XX
PI   Weissmann C;
XX
DR   WPI; 1981-53697D/30.
DR   N-PSDB; AAN10010.
XX
PT   DNA sequences coding for interferon-like polypeptide(s) - useful as
PT   antiviral or antitumour agents.
XX
PS   Claim 22; Fig 8-10; 136pp; English.
XX
CC   The inventors claim DNA sequences coding for interferon-like
CC   polypeptide(s). The DNA sequences pref. encode IFN-alpha type 1, 2, 4a
CC   and 4b. Pref. DNA sequences which hybridise to the inserts of Z-
CC   pBR322(Pst)/HcIF-4c, Z-pBR322(Pst)/HcIF-2h, Z-pBR322(Pst)/HcIF-SN35, Z-
CC   pBR322(Pst)/HcIF-SN42 and ZpKT287(Pst)/HcIF-2h-AH6 comprise Z-
CC   pBR322(Pst)/HcIF-II-206, Z-pBR322(Pst)/HcIF-SN35-AHL6, and Hif-chr1, -3,
CC   -12, -13, -16-1, -26, -30, -35, -19 and -27. Pref. recombinant DNA
CC   molecules are C8-IFN-alpha-1, C8-IFN-alpha-2, LAC-AUG(alpha-2) and beta-
CC   lac-AUG(alpha-2). A comparison of the nucleotide sequence of the coding
CC   region of HchrIF-35HB-alpha and that of Hif-2h (coding region) reveals
CC   that they are identical
XX
SQ   Sequence 189 AA;

  AAP10017  Length: 189  May 13, 2004 16:42  Type: P  Check: 9508  ..

       1  MASPFALLMV LVVLSCKSSC SLGCDLPETH SLDNRRTLML LAQMSRISPS

      51  SCLMDRHDFG FPQEEFDGNQ FQKAPAISVL HELIQQIFNL FTTKDSSAAW

     101  DEDLLDKFCT ELYQQLNDLE ACVMQEERVG ETPLMNADSI LAVKKYFRRI

     151  TLLCLGGCQS PCAWEVVRAE IMRSLSLSTN LQERLRRKE

!!AA_SEQUENCE 1.0
ID   AAP10018 standard; protein; 182 AA.
XX
AC   AAP10018;
XX
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of interferon (IFN) -alpha-2 encoded by the Hif-II-206 fragment
DE   of culture HcIF-G.
XX
KW   Anti-viral agent; anti-cancer agent; therapy; tumour.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .17
XX
PN   EP32134-A.
XX
PD   15-JUL-1981.
XX
PF   07-JAN-1981;    81EP-00300050.
XX
PR   08-JAN-1980;    80EP-00300079.
PR   03-APR-1980;    80EP-00301100.
```

PR 02-OCT-1980; 80GB-00031737.
XX
PA (BIOJ) BIOGEN NV.
XX
PI Weissmann C;
XX
DR WPI; 1981-53697D/30.
DR N-PSDB; AAN10011.
XX
PT DNA sequences coding for interferon-like polypeptide(s) - useful as
PT antiviral or antitumour agents.
XX
PS Claim 22; Fig 12-16; 136pp; English.
XX
CC The inventors claim DNA sequences coding for interferon-like
CC polypeptide(s). The DNA sequences pref. encode IFN-alpha type 1, 2, 4a
CC and 4b. Pref. DNA sequences which hybridise to the inserts of Z-
CC pBR322(Pst)/HcIF-4c, Z-pBR322(Pst)/HcIF-2h, Z-pBR322(Pst)/HcIF-SN35, Z-
CC pBR322(Pst)/HcIF-SN42 and ZpKT287(Pst)/HcIF-2h-AH6 comprise Z-
CC pBR322(Pst)/HcIF-II-206, Z-pBR322(Pst)/HcIF-SN35-AHL6, and Hif-chr1, -3,
CC -12, -13, -16-1, -26, -30, -35, -19 and -27. Pref. recombinant DNA
CC molecules are C8-IFN-alpha-1, C8-IFN-alpha-2, LAC-AUG(alpha-2) and beta-
CC lac-AUG(alpha-2). A comparison of the nucleotide sequence of the coding
CC region of HchrIF-35HB-alpha and that of Hif-2h (coding region) reveals
CC that they are identical
XX
SQ Sequence 182 AA;

AAP10018 Length: 182 May 13, 2004 16:42 Type: P Check: 3938 ..

1 LLVALLVLSC KSSCSVGCDL PQTHSLGSRR TLMLLAQMRR ISLFSCLKDR

51 HDFGFPQEEF GNQFQKAETI PVLHEMIQQI FNLFSTKDSS AAWDETLLDK

101 FYTELYQQLN DLEACVIQGV GVTETPLMKE DSILAVRKYF QRITLYLKEK

151 KYSPCAWEVV RAEIMRSFSL STNLQESLRS KE

!!AA_SEQUENCE 1.0
ID AAP10240 standard; protein; 35 AA.
XX
AC AAP10240;
XX
DT 15-DEC-1992 (first entry)
XX
DE Human beta-endorphin analogue.
XX
KW beta-endorphin; opioid; analgesic; [Gly31]-human-Beta-EP.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Region 31. .35
FT /note= "1-5 Gly residues are opt. deleted, when present
FT the C-terminal Gly is optionally amidated and when all 5
FT Gly residues are absent, Gly30 carries a -NH-lower alkyl"
XX
PN US4250087-A.
XX
PD 10-FEB-1981.
XX
PF 11-JUN-1979; 79US-00047200.
XX
PR 11-JUN-1979; 79US-00047200.
PR 10-DEC-1979; 79US-00102094.
XX
PA (HOFF) HOFFMANN LA ROCHE INC.
XX
PI Li CH;
XX
DR WPI; 1981-15464D/09.
XX
PT Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT antidiarrhoeal(s).
XX
PS Claim 2; Col 8; 6pp; English.
XX
CC Peptides corresponding to this generic beta-endorphin sequence have
CC either greater analgesic activity than the parent beta-endorphin and/ or
CC increased binding activity in an opiate binding assay. See AAP10239-
CC P10245
XX
SQ Sequence 35 AA;

AAP10240 Length: 35 May 13, 2004 16:42 Type: P Check: 7206 ..

1 YGGFMTSZKS QTPLVTLFKN AIIKNAYKKG GGGGG

!!AA_SEQUENCE 1.0
ID AAP10245 standard; peptide; 30 AA.
XX
AC AAP10245;
XX
DT 15-DEC-1992 (first entry)
XX
DE C-terminally protected human beta-endorphin analogue.
XX
KW beta-endorphin; opioid; analgesic; h-Beta-EP; n-amylamine.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 30
FT /note= "Gly-NH-(CH2)4-CH3"
XX
PN US4250087-A.
XX
PD 10-FEB-1981.
XX
PF 11-JUN-1979; 79US-00047200.
XX
PR 11-JUN-1979; 79US-00047200.
PR 10-DEC-1979; 79US-00102094.
XX
PA (HOFF) HOFFMANN LA ROCHE INC.
XX
PI Li CH;
XX
DR WPI; 1981-15464D/09.
XX
PT Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT antidiarrhoeal(s).
XX
PS Example 3; Col 6; 6pp; English.
XX
CC This peptide is an example of a carboxyl terminus analogue of beta-
CC endorphin which corresponds to a generic formula. Peptides corresponding
CC to the generic beta-endorphin sequence have either greater analgesic
CC activity than the parent beta-endorphin and/ or increased binding
CC activity in an opiate binding assay. See also AAP10239-P10244
XX
SQ Sequence 30 AA;

AAP10245 Length: 30 May 13, 2004 16:42 Type: P Check: 5491 ..

1 YGGFMTSZKS QTPLVTLFKN AIIKNAYKKG

!!AA_SEQUENCE 1.0
ID AAP10242 standard; protein; 32 AA.
XX
AC AAP10242;
XX
DT 15-DEC-1992 (first entry)
XX
DE [Gly31]-human beta-endorphin-Gly.
XX

```
KW   beta-endorphin; opioid; analgesic; human beta-EP.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   32
FT                   /note= "opt. amidated"
XX
PN   US4250087-A.
XX
PD   10-FEB-1981.
XX
PF   11-JUN-1979;    79US-00047200.
XX
PR   11-JUN-1979;    79US-00047200.
PR   10-DEC-1979;    79US-00102094.
XX
PA   (HOFF ) HOFFMANN LA ROCHE INC.
XX
PI   Li CH;
XX
DR   WPI; 1981-15464D/09.
XX
PT   Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT   antidiarrhoeal(s).
XX
PS   Claim 6 and 7; Col 8; 6pp; English.
XX
CC   The peptides [Gly31]-human-beta-endorphinyl glycine and [Gly31]-human-
CC   beta-endorphinyl-Gly-NH2 are specifically claimed examples of a generic
CC   beta-endorphin analogue formula. Peptides corresponding to the generic
CC   sequence have either greater analgesic activity than the parent beta-
CC   endorphin and/or increased binding activity in an opiate binding assay.
CC   See AAP10239-P10245
XX
SQ   Sequence 32 AA;

   AAP10242  Length: 32  May 13, 2004 16:42  Type: P  Check: 9964  ..

       1  YGGFMTSZKS QTPLVTLFKN AIIKNAYKKG GG

!!AA_SEQUENCE 1.0
ID   AAP10239 standard; peptide; 35 AA.
XX
AC   AAP10239;
XX
DT   15-DEC-1992  (first entry)
XX
DE   Generic endorphin analogue.
XX
KW   Camel; ovine; porcine; human; beta-endorphin; opioid; analgesic;
KW   [Gly31]-human-Beta-EP.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 23
FT                   /label= Ile, Val
FT   Misc-difference 27
FT                   /label= His, Tyr
FT   Region          31. .35
FT                   /note= "1-5 Gly residues are opt. deleted, when present
FT                   the C-terminal Gly is optionally amidated and when all 5
FT                   Gly residues are absent, Gly30 carries a -NH-lower alkyl"
XX
PN   US4250087-A.
XX
PD   10-FEB-1981.
XX
PF   11-JUN-1979;    79US-00047200.
XX
PR   11-JUN-1979;    79US-00047200.
PR   10-DEC-1979;    79US-00102094.
XX
PA   (HOFF ) HOFFMANN LA ROCHE INC.
XX
PI   Li CH;
XX
DR   WPI; 1981-15464D/09.
XX
PT   Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT   antidiarrhoeal(s).
XX
PS   Claim 1; Col 8; 6pp; English.
XX
CC   Peptides corresponding to this generic beta-endorphin sequence have
CC   either greater analgesic activity than the parent beta-endorphin and/ or
CC   increased binding activity in an opiate binding assay. See also AAP10240-
CC   P10245
XX
SQ   Sequence 35 AA;

   AAP10239  Length: 35  May 13, 2004 16:42  Type: P  Check: 7524  ..

       1  YGGFMTSZKS QTPLVTLFKN AIXKNAXKKG GGGGG

!!AA_SEQUENCE 1.0
ID   AAP10243 standard; protein; 33 AA.
XX
AC   AAP10243;
XX
DT   15-DEC-1992  (first entry)
XX
DE   [Gly31]-human beta-endorphin-Gly-Gly-NH2.
XX
KW   beta-endorphin; opioid; analgesic; human beta-EP; amide.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   33
FT                   /note= "amidated"
XX
PN   US4250087-A.
XX
PD   10-FEB-1981.
XX
PF   11-JUN-1979;    79US-00047200.
XX
PR   11-JUN-1979;    79US-00047200.
PR   10-DEC-1979;    79US-00102094.
XX
PA   (HOFF ) HOFFMANN LA ROCHE INC.
XX
PI   Li CH;
XX
DR   WPI; 1981-15464D/09.
XX
PT   Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT   antidiarrhoeal(s).
XX
PS   Claim 8; Col 8; 6pp; English.
XX
CC   The peptide [Gly31]-human-beta-endorphinyl Gly-Gly-NH2 is a specifically
CC   claimed example of a generic beta-endorphin analogue formula. Peptides
CC   corresponding to the generic sequence have either greater analgesic
CC   activity than the parent beta-endorphin and/or increased binding activity
CC   in an opiate binding assay. See AAP10239-P10245
XX
SQ   Sequence 33 AA;

   AAP10243  Length: 33  May 13, 2004 16:42  Type: P  Check: 2307  ..

       1  YGGFMTSZKS QTPLVTLFKN AIIKNAYKKG GGG

!!AA_SEQUENCE 1.0
```

```
ID   AAP10244 standard; protein; 33 AA.
XX
AC   AAP10244;
XX
DT   15-DEC-1992  (first entry)
XX
DE   [Gln8,Gly31]-human beta-endorphin-Gly-Gly-NH2.
XX
KW   beta-endorphin; opioid; analgesic; human beta-EP; amide.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   33
FT                   /note= "amidated"
XX
PN   US4250087-A.
XX
PD   10-FEB-1981.
XX
PF   11-JUN-1979;   79US-00047200.
XX
PR   11-JUN-1979;   79US-00047200.
PR   10-DEC-1979;   79US-00102094.
XX
PA   (HOFF ) HOFFMANN LA ROCHE INC.
XX
PI   Li CH;
XX
DR   WPI; 1981-15464D/09.
XX
PT   Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT   antidiarrhoeal(s).
XX
PS   Claim 9; Col 8; 6pp; English.
XX
CC   The peptide [Gly31]-human-beta-endorphinyl Gly-Gly-NH2 is a specifically
CC   claimed example of a generic beta-endorphin analogue formula. Peptides
CC   corresponding to the generic sequence have either greater analgesic
CC   activity than the parent beta-endorphin and/or increased binding activity
CC   in an opiate binding assay. See AAP10239-P10245
XX
SQ   Sequence 33 AA;

   AAP10244  Length: 33  May 13, 2004 16:42  Type: P  Check: 2235  ..

       1  YGGFMTSQKS QTPLVTLFKN AIIKNAYKKG GGG

!!AA_SEQUENCE 1.0
ID   AAP10241 standard; peptide; 31 AA.
XX
AC   AAP10241;
XX
DT   15-DEC-1992  (first entry)
XX
DE   [Gly31]-human beta-endorphin.
XX
KW   beta-endorphin; opioid; analgesic; human beta-EP.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   31
FT                   /note= "opt. amidated"
XX
PN   US4250087-A.
XX
PD   10-FEB-1981.
XX
PF   11-JUN-1979;   79US-00047200.
XX
PR   11-JUN-1979;   79US-00047200.
PR   10-DEC-1979;   79US-00102094.
XX
PA   (HOFF ) HOFFMANN LA ROCHE INC.
XX
PI   Li CH;
XX
DR   WPI; 1981-15464D/09.
XX
PT   Beta-endorphin analogues - useful as analgesics, narcotic antagonists and
PT   antidiarrhoeal(s).
XX
PS   Claim 4 and 5; Col 8; 6pp; English.
XX
CC   The peptides [Gly31]-human-beta-endorphin and [Gly31]-human-beta-
CC   endorphinamide are specifically claimed examples of a generic beta-
CC   endorphin analogue formula. Peptides corresponding to the generic
CC   sequence have either greater analgesic activity than the parent beta-
CC   endorphin and/or increased binding activity in an opiate binding assay.
CC   See AAP10239-P10245
XX
SQ   Sequence 31 AA;

   AAP10241  Length: 31  May 13, 2004 16:42  Type: P  Check: 7692  ..

       1  YGGFMTSZKS QTPLVTLFKN AIIKNAYKKG G

!!AA_SEQUENCE 1.0
ID   AAP10052 standard; protein; 31 AA.
XX
AC   AAP10052;
XX
DT   25-MAR-2003  (revised)
DT   12-OCT-1992  (first entry)
XX
DE   Sequence of N-terminal of mature human fibroblast interferon.
XX
KW   Interferon; antiviral agent.
XX
OS   Homo sapiens.
XX
PN   BE887397-A.
XX
PD   01-JUN-1981.
XX
PF   06-FEB-1980;   80GB-00003947.
XX
PR   06-FEB-1980;   80GB-00003947.
PR   28-FEB-1980;   80GB-00006712.
PR   17-APR-1980;   80GB-00012666.
PR   24-APR-1980;   80GB-00013592.
PR   12-MAY-1980;   80GB-00015646.
PR   12-MAY-1980;   80GB-00015656.
PR   18-NOV-1980;   80GB-00036951.
PR   23-JAN-1981;   81GB-00002051.
XX
PA   (SEAR ) SEARLE & CO G D.
XX
DR   WPI; 1981-44110D/25.
DR   N-PSDB; AAN10051.
XX
PT   Gene for expressing protein similar to human interferon - derived plasmid
PT   recombined materials, and modified bacterial cells.
XX
PS   Disclosure; Schema H, page 53; 71pp; French.
XX
CC   It is predicted that the probability of complementarity between mouse IFN
CC   initators IFIA and IFIB and human fibroblast IFN is higher than that
CC   between human fibroblast IFN and human lymphoblast IFN. Radioactively
CC   labelled oligos IFIA and IFIB (AAN10044, AAN10045) were used as
CC   initiators for the prepn. of human fibroblast IFN. The transcript derived
CC   using IFIA is given in AAN10046. It corresp. to the 5' terminal of human
CC   fibroblast IFN. The entire sequence of mature human fibroblast interferon
CC   is encoded by AAN10049 (see also AAP10051). Another recombinant IFN which
CC   was recovered differed from AAN10049 in that the codon for the 30th amino
```

```
CC   acid had a "silent" base change (TAC to TAT), indicating the existence of
CC   genic polymorphism (see AAP10052/N10051). (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 31 AA;

   AAP10052  Length: 31  May 13, 2004 16:42  Type: P  Check: 8597  ..

       1  MSYNLLGFLQ RSSNFQCQKL LWQLNGRLQY C

!!AA_SEQUENCE 1.0
ID   AAP10051 standard; protein; 168 AA.
XX
AC   AAP10051;
XX
DT   25-MAR-2003  (revised)
DT   12-OCT-1992  (first entry)
XX
DE   Sequence of mature human fibroblast interferon.
XX
KW   Interferon; antiviral agent.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Protein         3. .168
XX
PN   BE887397-A.
XX
PD   01-JUN-1981.
XX
PF   06-FEB-1980;   80GB-00003947.
XX
PR   06-FEB-1980;   80GB-00003947.
PR   28-FEB-1980;   80GB-00006712.
PR   17-APR-1980;   80GB-00012666.
PR   24-APR-1980;   80GB-00013592.
PR   12-MAY-1980;   80GB-00015646.
PR   12-MAY-1980;   80GB-00015656.
PR   18-NOV-1980;   80GB-00036951.
PR   23-JAN-1981;   81GB-00002051.
XX
PA   (SEAR ) SEARLE & CO G D.
XX
DR   WPI; 1981-44110D/25.
DR   N-PSDB; AAN10049.
XX
PT   Gene for expressing protein similar to human interferon - derived plasmid
PT   recombined materials, and modified bacterial cells.
XX
PS   Disclosure; Schema E, page 47-49; 71pp; French.
XX
CC   It is predicted that the probability of complementarity between mouse IFN
CC   initators IFIA and IFIB and human fibroblast IFN is higher than that
CC   between human fibroblast IFN and human lymphoblast IFN. Radioactively
CC   labelled oligos IFIA and IFIB (AAN10044, AAN10045) were used as
CC   initiators for the prepn. of human fibroblast IFN. The transcript derived
CC   using IFIA is given in AAN10046. It corresp. to the 5' terminal of human
CC   fibroblast IFN. The entire sequence of mature human fibroblast interferon
CC   is encoded by AAN10049 (see also AAP10051). (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 168 AA;

  AAP10051  Length: 168  May 13, 2004 16:42  Type: P  Check: 5985  ..

       1  LSMSYNLLGF LQRSSNFQCQ KLLWQLNGRL EYCLKDRMNF DIPEEIKQLQ

      51  QFQKEDAALT IYEMLQNIFA IFRQDSSSTG WNETIVENLL ANVYHQINHL

     101  KTVLEEKLEK EDFTRGKLMS SLHLKRYYGR ILHYLKAKEY SHCAWTIVRV

     151  EILRNFYFIN RLTRYLRN


!!AA_SEQUENCE 1.0
ID   AAP10609 standard; peptide; 6 AA.
XX
AC   AAP10609;
XX
DT   25-MAR-2003  (revised)
DT   15-JAN-1993  (first entry)
XX
DE   Antifungal cyclic hexapeptide.
XX
KW   Antibiotic; A-30912; S31794-F1; antifungal; Trichophyton; Candida;
KW   disinfectant; antiseptic; cyclic.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= Orn
FT                   /note= "(1)N-alpha-acylated by -CO-R5, where R5 is alkyl
FT                   or alkenyl other than tridecyl; (2)4,5-di-hydroxy-
FT                   substituted; (3)has omega-amino condensed to the C-
FT                   terminal 4Me3Hyp, giving cyclic peptide"
FT   Modified-site   3
FT                   /label= 4Hyp
FT   Modified-site   4
FT                   /label= OTHER
FT                   /note= "3,4-di-hydroxy-homotyrosine"
FT   Modified-site   5
FT                   /note= "3-hydroxy-Gln"
FT   Modified-site   6
FT                   /label= 3Hyp
FT                   /note= "substituted by 4-methyl, and forms cyclic peptide
FT                   bond with omega-amino of Orn(1)"
XX
PN   BE886578-A.
XX
PD   10-JUN-1981.
XX
PF   13-DEC-1979;   79US-00103030.
XX
PR   13-DEC-1979;   79US-00103030.
PR   13-DEC-1979;   79US-00103130.
PR   13-DEC-1979;   79US-00103314.
PR   13-DEC-1979;   79US-00103315.
PR   13-DEC-1979;   79US-00103316.
PR   25-AUG-1980;   80US-00181438.
PR   25-AUG-1980;   80US-00181444.
PR   25-AUG-1980;   80US-00181445.
PR   25-AUG-1980;   80US-00181450.
PR   25-AUG-1980;   80US-00181451.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Abbott BJ,  Fukuda DS;
XX
DR   WPI; 1981-45990D/26.
XX
PT   Re-acylated derivs. of cyclic peptide antibiotics - useful as antifungal
PT   agents.
XX
PS   Claim 1; Page 77; 82pp; French.
XX
CC   The cyclic peptide is an antifungal agent active both in vitro and in
CC   vivo against e.g. Trichophyton mentagrophytes or especially Candida
CC   albicans. It is prepared by acylation of the corresponding cyclic peptide
CC   in which the Orn has a free alpha-amino group, which in turn is formed by
CC   selective enzymatic deacylation of antibiotic A- 30912 complex or
CC   antibiotic AAS31794-F1. . (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 6 AA;

  AAP10609  Length: 6  May 13, 2004 16:42  Type: P  Check: 1733  ..
```

```
     1  XTPXQP

!!AA_SEQUENCE 1.0
ID   AAP10400 standard; protein; 43 AA.
XX
AC   AAP10400;
XX
DT   21-DEC-1992  (first entry)
XX
DE   Thymosin beta-4.
XX
KW   Ion-exchange chromatography; terminal deoxynucleotidyl transferase;
KW   gel filtration; TDT.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "MeCO-Ser"
XX
PN   US4297276-A.
XX
PD   27-OCT-1981.
XX
PF   08-DEC-1978;   78US-00967675.
XX
PR   08-DEC-1978;   78US-00967675.
PR   23-MAR-1979;   79US-00023115.
PR   16-JUN-1980;   80US-00159430.
XX
PA   (UYWA-) UNIV WASHINGTON GEORGE.
XX
PI   Goldstein AL,  Low TLK;
XX
DR   WPI; 1981-85307D/46.
XX
PT   Thymosin(s) beta-3 and beta-4 from thymosin fraction-5 - useful as
PT   immuno:potentiating agents.
XX
PS   Claim 2; Page 14; 19pp; English.
XX
CC   The sequence given is the amino acid sequence of thymosin beta-4. It was
CC   isolated, along with thymosin beta-3 from a modified thymosin fraction 5
CC   by ion-exchange chromatography and gel filtration. Thymosin beta-3 has an
CC   isoelectric point of 5.1 and a molecular weight of 4,982. Thymosin beta-3
CC   and -4 can be used to induce terminal deoxynucleotidyl transferase (TDT)
CC   positive cells in T-cell populations, in a dosage specific manner.
CC   Thymosin beta-3 and -4 are useful as immunopotentiating agents
XX
SQ   Sequence 43 AA;

   AAP10400  Length: 43  May 13, 2004 16:42  Type: P  Check: 1205  ..

     1  SDKPDMAEIE KFDKSKLKLT ETQEKNPLPS KETIEQEKQA GES

!!AA_SEQUENCE 1.0
ID   AAP10399 standard; peptide; 47 AA.
XX
AC   AAP10399;
XX
DT   21-DEC-1992  (first entry)
XX
DE   Thymosin beta-3.
XX
KW   Ion-exchange chromatography; terminal deoxynucleotidyl transferase;
KW   gel filtration; TDT.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "MeCO-Ser"
FT   Misc-difference 44
FT                   /label= ASX, GLX, ILE, THR
XX
PN   US4297276-A.
XX
PD   27-OCT-1981.
XX
PF   08-DEC-1978;   78US-00967675.
XX
PR   08-DEC-1978;   78US-00967675.
PR   23-MAR-1979;   79US-00023115.
PR   16-JUN-1980;   80US-00159430.
XX
PA   (UYWA-) UNIV WASHINGTON GEORGE.
XX
PI   Goldstein AL,  Low TLK;
XX
DR   WPI; 1981-85307D/46.
XX
PT   Thymosin(s) beta-3 and beta-4 from thymosin fraction-5 - useful as
PT   immuno:potentiating agents.
XX
PS   Claim 1; Page 13; 19pp; English.
XX
CC   The sequence given is the amino acid sequence of thymosin beta-3. It was
CC   isolated, along with thymosin beta-4 from a modified thymosin fraction 5
CC   by ion-exchange chromatography and gel filtration. Thymosin beta-3 has an
CC   isoelectric point of 5.2 and a molecular weight of 5,500. Thymosin beta-3
CC   and -4 can be used to induce terminal deoxynucleotidyl transferase (TDT)
CC   positive cells in T-cell populations, in a dosage specific manner.
CC   Thymosin beta-3 and -4 are useful as immunopotentiating agents
XX
SQ   Sequence 47 AA;

   AAP10399  Length: 47  May 13, 2004 16:42  Type: P  Check: 5400  ..

     1  SDKPDMAEIE KFDKSKLKLT ETQEKNPLPS KETIEQEKQA GESXAKT

!!AA_SEQUENCE 1.0
ID   AAP10037 standard; protein; 48 AA.
XX
AC   AAP10037;
XX
DT   27-AUG-2003  (revised)
DT   25-MAR-2003  (revised)
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of fusion protein comprising beta-endorphin and beta-melanocyte
DE   stimulating hormone (beta-MSH).
XX
KW   Opiate alkaloid; morphine; analgesic; pain; analogue.
XX
OS   Mammalia.
XX
FH   Key             Location/Qualifiers
FT   Protein         1. .16
FT                   /label= beta-MSH
FT   Peptide         17. .18
FT                   /label= connecting peptide
FT   Protein         19. .48
FT                   /label= beta-endorphin
XX
PN   EP35781-A.
XX
PD   16-SEP-1981.
XX
PF   10-MAR-1980;   80US-00128711.
XX
PR   10-MAR-1980;   80US-00128711.
PR   10-JUN-1982;   82US-00387009.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
```

PI Baxter JD, Fettes I, Shine J;
XX
DR WPI; 1981-70169D/39.
DR N-PSDB; AAN10030.
XX
PT Mfg. transfer vector contg. sequence for mammalian peptide - with opiate
PT agonist or antagonist activity, and transformed microorganisms.
XX
PS Disclosure; Fig 1; 36pp; English.
XX
CC The cloned coding sequence used as the starting point in the invention
CC contained the coding information for AAs 44-90 of the beta lipotropin
CC portion of the ACTH/beta-endorphin precursor protein. A portion of the
CC cloned coding sequence is shown in AAN10030. The sequence codes for all
CC of beta-endorphin except the C-terminal glutamine. In the mammalian
CC pituitary beta endorphin is synthesised as a precursor protein which
CC includes the AA sequence of beta-MSH. (Updated on 25-MAR-2003 to correct
CC PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 27-
CC AUG-2003 to correct OS field.)
XX
SQ Sequence 48 AA;

AAP10037 Length: 48 May 13, 2004 16:42 Type: P Check: 9631 ..

1 GPYRVEHFRW SNPPKDKRYX GFMTSEKSQT PLVTLFXNAI IKNAHKKG

!!AA_SEQUENCE 1.0
ID AAP10001 standard; protein; 226 AA.
XX
AC AAP10001;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 15-OCT-1992 (first entry)
XX
DE Sequence encoded by gene S.
XX
KW Vaccine; diagnostic reagent; gene S; hepatitis B virus.
XX
OS Hepatitis B virus; serotype ayw 3 182.
XX
FH Key Location/Qualifiers
FT Misc-difference 24. .226
FT /note= "Also claimed"
FT Misc-difference 113. .165
FT /note= "Also claimed"
FT Misc-difference 126. .132
FT /note= "the following peptides are claimed: TTAQGTS,
FT TAQGTS, AQGTS"
XX
PN WO8100577-A.
XX
PD 05-MAR-1981.
XX
PF 30-AUG-1979; 79FR-00021811.
XX
PR 30-AUG-1979; 79FR-00021811.
PR 22-APR-1980; 80FR-00009039.
XX
PA (INSP) INST PASTEUR.
PA (GALI/) GALIBERT F.
PA (INRM) INSERM INST NAT SANTE & RECH MED.
PA (ANVR) ANVAR AGENCE NAT VALORISATION.
XX
PI Tiollais P, Charnay P, Galibert F;
XX
DR WPI; 1981-21420D/12.
DR N-PSDB; AAN10004.
XX
PT Nucleic acid coding for hepatitis B antigen - and corresp. peptides,
PT vectors and hybrid proteins.
XX
PS Claim 15; Fig 3A-3C; 31pp; French.
XX
CC AAN10005 is a double-stranded DNA fragment excised from HBV DNA, with an
CC Ava III terminus and an EcoRI terminus. The lower strand contains gene S,
CC which is claimed (see AAN10005). The inventors claim immunogenic peptides
CC encoded by fragments of AAN10005 (and the genes encoding them) for use as
CC HBV vaccines and diagnostic reagents. (Updated on 25-MAR-2003 to correct
CC PA field.) (Updated on 28-OCT-2003 to standardise OS field)
XX
SQ Sequence 226 AA;

AAP10001 Length: 226 May 13, 2004 16:42 Type: P Check: 3511 ..

1 MENITSGFLG PLLVLQAGFF LLTRILTIPQ SLDSWWTSLN FLGGTTVCLG

51 QNSQSPTSNH SPTSCPPTCP GYRWMCLPRF IIFLFILLLC LIFLLVLLDY

101 QGMLPVCPLI PGSSTTSTGP CRTCMTTAQG TSMYPSCCCT KPSDGNCTCI

151 PIPSSWAFGK FLWEWASARF SWLSLLVPFV QWFVGLSPTV WLSVIWMMWY

201 WGPSLYSILS PFLPLLPIFF CLWVYI

!!AA_SEQUENCE 1.0
ID AAP10002 standard; protein; 203 AA.
XX
AC AAP10002;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 15-OCT-1992 (first entry)
XX
DE Sequence encoded by gene S, lacking the proximal 23 residues.
XX
KW Vaccine; diagnostic reagent; gene S; hepatitis B virus.
XX
OS Hepatitis B virus; serotype ayw 3 182.
XX
PN WO8100577-A.
XX
PD 05-MAR-1981.
XX
PF 30-AUG-1979; 79FR-00021811.
XX
PR 30-AUG-1979; 79FR-00021811.
PR 22-APR-1980; 80FR-00009039.
XX
PA (INSP) INST PASTEUR.
PA (GALI/) GALIBERT F.
PA (INRM) INSERM INST NAT SANTE & RECH MED.
PA (ANVR) ANVAR AGENCE NAT VALORISATION.
XX
PI Tiollais P, Charnay P, Galibert F;
XX
DR WPI; 1981-21420D/12.
DR N-PSDB; AAN10005.
XX
PT Nucleic acid coding for hepatitis B antigen - and corresp. peptides,
PT vectors and hybrid proteins.
XX
PS Claim 15; Fig 5; 31pp; French.
XX
CC AAN10005 is a double-stranded DNA fragment excised from HBV DNA, with an
CC Ava III terminus and an EcoRI terminus. The lower strand contains gene S,
CC which is claimed (see AAN10005). The inventors claim immunogenic peptides
CC encoded by fragments of AAN10005 (and the genes encoding them) for use as
CC HBV vaccines and diagnostic reagents. (Updated on 25-MAR-2003 to correct
CC PA field.) (Updated on 28-OCT-2003 to standardise OS field)
XX
SQ Sequence 203 AA;

AAP10002 Length: 203 May 13, 2004 16:42 Type: P Check: 610 ..

1 RILTIPQSLD SWWTSLNFLG GTTVCLGQNS QSPTSNHSPT SCPPTCPGYR

```
     51  WMCLPRFIIF LFILLLCLIF LLVLLDYQGM LPVCPLIPGS STTSTGPCRT

    101  CMTTAQGTSM YPSCCCTKPS DGNCTCIPIP SSWAFGKFLW EWASARFSWL

    151  SLLVPFVQWF VGLSPTVWLS VIWMMWYWGP SLYSILSPFL PLLPIFFCLW

    201  VYI

!!AA_SEQUENCE 1.0
ID   AAP10140 standard; peptide; 35 AA.
XX
AC   AAP10140;
XX
DT   25-MAR-2003  (revised)
DT   15-DEC-1992  (first entry)
XX
DE   h-PTH antigen.
XX
KW   Human parathyroid hormone; antibody; radioactive.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   9
FT                   /label= Nle
FT   Modified-site   19
FT                   /label= Nle
XX
PN   JP56002947-A.
XX
PD   13-JAN-1981.
XX
PF   20-JUN-1979;   79JP-00078592.
XX
PR   20-JUN-1979;   79JP-00078592.
XX
PA   (TOXN ) TOYO JOZO KK.
XX
DR   WPI; 1981-18073D/11.
XX
PT   Peptide for determining parathormone - produces antibody having cross-
PT   reactivity with human parathormone.
XX
PS   Claim 1; Page 1; 20pp; Japanese.
XX
CC   The sequence given is an antigen used in the production of an antibody
CC   which has cross-reactivity with human parathyroid hormone (h-PTH). This
CC   antigen can be used in the preparation of an antibody of h-PTH or in the
CC   determination of h-PTH. This antigen can be labelled with 125-I and is
CC   radioactively stable for long periods of time. (Updated on 25-MAR-2003 to
CC   correct PR field.)
XX
SQ   Sequence 35 AA;

   AAP10140  Length: 35  May 13, 2004 16:42  Type: P  Check: 8644  ..

      1  YSVSEIQLXH NLGKHLNSXE RVEWLRKKLQ DVHNF

!!AA_SEQUENCE 1.0
ID   AAP10042 standard; protein; 110 AA.
XX
AC   AAP10042;
XX
DT   25-MAR-2003  (revised)
DT   14-AUG-1992  (first entry)
XX
DE   Sequence encoded by human preproinsulin gene on pBR322/gHI 12.5.
XX
KW   Hormone; insulin; intron.
XX
OS   Homo sapiens.
XX
PN   EP37723-A.
XX
PD   14-OCT-1981.
XX
PF   07-APR-1980;   80US-00137758.
XX
PR   07-APR-1980;   80US-00137758.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
DR   WPI; 1981-78097D/43.
DR   N-PSDB; AAN10035.
XX
PT   Cloned DNA segments for expression in eucaryotic cells - useful for
PT   prodn. of polypeptide hormones esp. human insulin.
XX
PS   Example; Table I, p 15; 23pp; English.
XX
CC   The inventors claim a cloned DNA segment derived from the human genome
CC   capable of being expressed in a eucaryotic cell. Pref. the DNA segments
CC   are designated gHI 12.5 and 14.1 and the gHI 12.5 is suitably inserted at
CC   the EcoRI site of pBR322. The DNA transfer vector is pref. a portion of
CC   the SV40 genome. In the prepn. of a eucaryotic cell strain contg. the DNA
CC   transfer vector, pref. mouse Ltk(-)aprt(-) cells are used. (Updated on 25
CC   -MAR-2003 to correct PA field.)
XX
SQ   Sequence 110 AA;

  AAP10042  Length: 110  May 13, 2004 16:42  Type: P  Check: 4878  ..

      1  MALWMRLLPL LALLALWGPD PAAAFVNQHL CGSHLVEALY LVCGERGFFY

     51  TPKTRREAED LQVGQVELGG GPGAGSLQPL ALEGSLQKRG IVEQCCTSIC

    101  SLYQLENYCN

!!AA_SEQUENCE 1.0
ID   AAP10197 standard; protein; 36 AA.
XX
AC   AAP10197;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure XI analogous to the C-terminal, 111-145 AA sequence
DE   of the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
XX
```

```
PT   Modified hormones and non-hormonal proteins - useful as antigens for
PT   admin. to produce antibodies for fertility control etc.
XX
PS   Claim 12; Col 40; 25pp; English.
XX
CC   The inventors claim modified hormones and non-hormonal proteins useful as
CC   antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC   esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC   angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC   FSH. The polypeptide may be modified by addn. of at least one
CC   diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC   acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used. Structure X is a combination of structure II with a six
CC   residue Proline spacer sequence and a Cys component at the C-terminal.
CC   Similarly, structure XI combines structure II with a Cys component at the
CC   C-terminal without a Proline spacer sequence. Structure XII has the
CC   sequence of structure II with the addition of Thr-Cys components at its N
CC   -terminal. Structure XIV is similar to structure II with the addition of
CC   spacer components at the N-terminal and a Cys component for conjugation
CC   purposes
XX
SQ   Sequence 36 AA;

   AAP10197  Length: 36  May 13, 2004 16:42  Type: P  Check: 1871  ..

       1  DDPRFQDSSS SKAPPPSLPS PSRLPGPSDT PILPQC

!!AA_SEQUENCE 1.0
ID   AAP10188 standard; protein; 30 AA.
XX
AC   AAP10188;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure III analogous to the C-terminal, 116-145 AA
DE   sequence of the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   6
FT                   /note= "location of carbohydrate moieties on natural
FT                   polypeptide"
FT   Modified-site   12
FT                   /note= "as above"
FT   Modified-site   17
FT                   /note= "as above"
FT   Modified-site   23
FT                   /note= "as above"
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
XX
PT   Modified hormones and non-hormonal proteins - useful as antigens for
PT   admin. to produce antibodies for fertility control etc.
XX
PS   Claim 13; Col 40; 25pp; English.
XX
CC   The inventors claim modified hormones and non-hormonal proteins useful as
CC   antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC   esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC   angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC   FSH. The polypeptide may be modified by addn. of at least one
CC   diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC   acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used
XX
SQ   Sequence 30 AA;

   AAP10188  Length: 30  May 13, 2004 16:42  Type: P  Check: 6537  ..

       1  QDSSSSKAPP PSLPSPSRLP GPSDTPILPQ

!!AA_SEQUENCE 1.0
ID   AAP10192 standard; protein; 20 AA.
XX
AC   AAP10192;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure VII analogous to the C-terminal, 111-130 AA
DE   sequence of the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
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PT   Modified hormones and non-hormonal proteins - useful as antigens for
PT   admin. to produce antibodies for fertility control etc.
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PS   Claim 13; Col 40; 25pp; English.
XX
CC   The inventors claim modified hormones and non-hormonal proteins useful as
CC   antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC   esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
```

CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used
XX
SQ Sequence 20 AA;

AAP10192 Length: 20 May 13, 2004 16:42 Type: P Check: 6672 ..

1 DDPRFQDSSS SKKPPPSLPS

!!AA_SEQUENCE 1.0
ID AAP10194 standard; protein; 29 AA.
XX
AC AAP10194;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure VIIIa analogous to the C-terminal, AA sequence of
DE the beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 13; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used. Structure VIII incorporates two sequences, one which may
CC be recognised in structure V and the other in structure IV. These two
CC sequence are separated by two spacer sequences of Proline components and
CC one is joined with an intermediately disposed Cysteine component which
CC serves a conjugation function. Structure VIIIa represents structure VIII
CC with additional Pro spacer residues to provide a widened spacing of
CC determinant sites
XX
SQ Sequence 29 AA;

AAP10194 Length: 29 May 13, 2004 16:42 Type: P Check: 4098 ..

1 DDPRFQDSPP PPPPCPPPPP PSDTPILPQ

!!AA_SEQUENCE 1.0
ID AAP10200 standard; protein; 42 AA.
XX
AC AAP10200;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure XIV analogous to the C-terminal, 111-145 AA
DE sequence of the beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 12; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used. Structure X is a combination of structure II with a six
CC residue Proline spacer sequence and a Cys component at the C-terminal.
CC Similarly, structure XI combines structure II with a Cys component at the
CC C-terminal without a Proline spacer sequence. Structure XII has the
CC sequence of structure II with the addition of Thr-Cys components at its N
CC -terminal. Structure XIV is similar to structure II with the addition of
CC spacer components at the N-terminal and a Cys component for conjugation
CC purposes
XX
SQ Sequence 42 AA;

AAP10200 Length: 42 May 13, 2004 16:42 Type: P Check: 782 ..

```
     1  CPPPPPPDDP RFQDSSSSKA PPPSLPSPSR LPGPSDTPIL PQ

!!AA_SEQUENCE 1.0
ID   AAP10198 standard; protein; 37 AA.
XX
AC   AAP10198;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure XII analogous to the C-terminal, 111-145 AA
DE   sequence of the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
XX
PT   Modified hormones and non-hormonal proteins - useful as antigens for
PT   admin. to produce antibodies for fertility control etc.
XX
PS   Claim 12; Col 40; 25pp; English.
XX
CC   The inventors claim modified hormones and non-hormonal proteins useful as
CC   antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC   esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC   angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC   FSH. The polypeptide may be modified by addn. of at least one
CC   diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC   acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used. Structure X is a combination of structure II with a six
CC   residue Proline spacer sequence and a Cys component at the C-terminal.
CC   Similarly, structure XI combines structure II with a Cys component at the
CC   C-terminal without a Proline spacer sequence. Structure XII has the
CC   sequence of structure II with the addition of Thr-Cys components at its N
CC   -terminal. Structure XIV is similar to structure II with the addition of
CC   spacer components at the N-terminal and a Cys component for conjugation
CC   purposes
XX
SQ   Sequence 37 AA;

   AAP10198  Length: 37  May 13, 2004 16:42  Type: P  Check: 5133  ..

     1  TCDDPRFQDS SSSKAPPPSL PSPSRLPGPS DTPILPQ

!!AA_SEQUENCE 1.0
ID   AAP10201 standard; protein; 44 AA.
XX
AC   AAP10201;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure XV analogous to the C-terminal, AA sequence of the
DE   beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
XX
PT   Modified hormones and non-hormonal proteins - useful as antigens for
PT   admin. to produce antibodies for fertility control etc.
XX
PS   Example; Col 30; 25pp; English.
XX
CC   The inventors claim modified hormones and non-hormonal proteins useful as
CC   antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC   esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC   angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC   FSH. The polypeptide may be modified by addn. of at least one
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CC   acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used
XX
SQ   Sequence 44 AA;

   AAP10201  Length: 44  May 13, 2004 16:42  Type: P  Check: 7767  ..

     1  DHPLTCDDPR FQDSSSSKKP PPSLPSPSRL PGPPDTPILP QSLP

!!AA_SEQUENCE 1.0
ID   AAP10196 standard; protein; 41 AA.
XX
AC   AAP10196;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure X analogous to the C-terminal, 111-145 AA sequence
DE   of the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
```

```
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
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PT   admin. to produce antibodies for fertility control etc.
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CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used. Structure X is a combination of structure II with a six
CC   residue Proline spacer sequence and a Cys component at the C-terminal.
CC   Similarly, structure XI combines structure II with a Cys component at the
CC   C-terminal without a Proline spacer sequence. Structure XII has the
CC   sequence of structure II with the addition of Thr-Cys components at its N
CC   -terminal. Structure XIV is similar to structure II with the addition of
CC   spacer components at the N-terminal and a Cys component for conjugation
CC   purposes
XX
SQ   Sequence 41 AA;

   AAP10196  Length: 41  May 13, 2004 16:42  Type: P  Check: 7448  ..

       1  DDPFQDSSSS KAPPPSLPSP SRLPGPSDTP ILPQPPPPPP C

!!AA_SEQUENCE 1.0
ID   AAP10199 standard; protein; 42 AA.
XX
AC   AAP10199;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure XIII analogous to the C-terminal, AA sequence of
DE   the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
PN   US4302386-A.
XX
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
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PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
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PT   admin. to produce antibodies for fertility control etc.
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CC   angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC   FSH. The polypeptide may be modified by addn. of at least one
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CC   acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used. Structure VIII incorporates two sequences, one which may
CC   be recognised in structure V and the other in structure IV. These two
CC   sequence are separated by two spacer sequences of Proline components and
CC   one is joined with an intermediately disposed Cysteine component which
CC   serves a conjugation function. Structure VIIIa represents structure VIII
CC   with additional Pro spacer residues to provide a widened spacing of
CC   determinant sites. Structure XI mimics sequences from the beta subunit of
CC   HCG with the addition of a Proline spacer sequence, a Cys component at
CC   the C-terminal, and an Aba substituted for Cys at the 110 posn. Structure
CC   XIII is similar to structure IX but does not contain the spacer conjugate
XX
SQ   Sequence 42 AA;

   AAP10199  Length: 42  May 13, 2004 16:42  Type: P  Check: 321  ..

       1  DHPLTTDDPR FQDSSSSKAP PPSLPSPSRL PGPSDTPILP QC

!!AA_SEQUENCE 1.0
ID   AAP10187 standard; protein; 35 AA.
XX
AC   AAP10187;
XX
DT   10-AUG-1992  (first entry)
XX
DE   Sequence of structure II analogous to the C-terminal, 111-145 AA sequence
DE   of the beta subunits of human chorionic gonadotropin.
XX
KW   Antigen; immunogen; contraceptive; fertility control.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   11
FT                   /note= "location of carbohydrate moieties on natural
FT                   polypeptide"
FT   Modified-site   17
FT                   /note= "as above"
FT   Modified-site   22
FT                   /note= "as above"
FT   Modified-site   28
FT                   /note= "as above"
XX
PN   US4302386-A.
XX
```

PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 13; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used
XX
SQ Sequence 35 AA;

AAP10187 Length: 35 May 13, 2004 16:42 Type: P Check: 9751 ..

1 DDPRFQDSSS SKAPPPSLPP PSRLPGPSDT PTLPQ

!!AA_SEQUENCE 1.0
ID AAP10189 standard; protein; 15 AA.
XX
AC AAP10189;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure IV analogous to the C-terminal, 138-145 AA sequence
DE of the beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 13; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used. Structure IV incorporates Cys component at the amino or N
CC -terminal which is associated with a Proline spacer sequence. These
CC spacers serve to position the sequence which follows physically distant
CC form the carrier-modifier. The latter sequence may be observed to
CC represent the 138th to 145th sequence of the beta subunit of HCG
XX
SQ Sequence 15 AA;

AAP10189 Length: 15 May 13, 2004 16:42 Type: P Check: 9422 ..

1 CPPPPPPSDT PILPQ

!!AA_SEQUENCE 1.0
ID AAP10191 standard; protein; 31 AA.
XX
AC AAP10191;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure VI analogous to the C-terminal, 115-145 AA sequence
DE of the beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for

PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 13; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used
XX
SQ Sequence 31 AA;

AAP10191 Length: 31 May 13, 2004 16:42 Type: P Check: 8967 ..

1 FQDSSSSKAP PPSLPSPSRL PGPSDTPILP Q

!!AA_SEQUENCE 1.0
ID AAP10193 standard; protein; 23 AA.
XX
AC AAP10193;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure VIII analogous to the C-terminal, AA sequence of
DE the beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 13; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used. Structure VIII incorporates two sequences, one which may
CC be recognised in structure V and the other in structure IV. These two
CC sequence are separated by two spacer sequences of Proline components and
CC one is joined with an intermediately disposed Cysteine component which
CC serves a conjugation function. Structure VIIIa represents structure VIII
CC with additional Pro spacer residues to provide a widened spacing of
CC determinant sites
XX
SQ Sequence 23 AA;

AAP10193 Length: 23 May 13, 2004 16:42 Type: P Check: 1507 ..

1 DDPRFQDSPP PCPPPSDTPI LPQ

!!AA_SEQUENCE 1.0
ID AAP10202 standard; protein; 38 AA.
XX
AC AAP10202;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure XVI analogous to the C-terminal, AA sequence of the
DE beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Example; Col 310; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used
XX
SQ Sequence 38 AA;

AAP10202 Length: 38 May 13, 2004 16:42 Type: P Check: 8345 ..

1 DDPRFQDSSS SKKPPPSLPS PSRLPGPPDT PILPQSLP

!!AA_SEQUENCE 1.0
ID AAP10190 standard; protein; 15 AA.
XX
AC AAP10190;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure V analogous to the C-terminal, 111-118 AA sequence
DE of the beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 13; Col 40; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used. Structure V represents an initial sequence corresponding
CC with the 111th to 118th components of the beta subunit of HCG followed by
CC a sequence of six Proline spacer components and a carboxyl terminal,
CC present as Cys
XX
SQ Sequence 15 AA;

AAP10190 Length: 15 May 13, 2004 16:42 Type: P Check: 9333 ..

1 DDPRRQDSPP PPPPC

!!AA_SEQUENCE 1.0
ID AAP10203 standard; protein; 37 AA.
XX
AC AAP10203;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence analogous to the C-terminal, AA sequence of the beta subunits of
DE human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
PN US4302386-A.
XX
PD 24-NOV-1981.
XX
PF 07-MAY-1973; 73US-00357892.
XX
PR 07-MAY-1973; 73US-00357892.
PR 16-OCT-1973; 73US-00406821.
PR 22-APR-1974; 74US-00462955.
PR 14-OCT-1975; 75US-00622031.
PR 25-AUG-1978; 78US-00936876.
PR 16-JAN-1980; 80US-00112628.
PR 20-NOV-1981; 81US-00323690.
PR 04-MAR-1983; 83US-00472190.
PR 15-JUL-1987; 87US-00073570.
PR 15-JUL-1987; 87US-00073769.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Stevens VC;
XX
DR WPI; 1981-92939D/50.
XX
PT Modified hormones and non-hormonal proteins - useful as antigens for
PT admin. to produce antibodies for fertility control etc.
XX
PS Claim 34; Col 42; 25pp; English.
XX
CC The inventors claim modified hormones and non-hormonal proteins useful as
CC antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC FSH. The polypeptide may be modified by addn. of at least one
CC diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC serum protein or a virus. Typically, sucrose copolymerised with
CC epichlorohydrin is used for the modification, or diptheria virus or
CC toxoid is used
XX
SQ Sequence 37 AA;

AAP10203 Length: 37 May 13, 2004 16:42 Type: P Check: 5133 ..

1 TCDDPRFQDS SSSKAPPPSL PSPSRLPGPS DTPILPQ

!!AA_SEQUENCE 1.0
ID AAP10195 standard; protein; 48 AA.
XX
AC AAP10195;
XX
DT 10-AUG-1992 (first entry)
XX
DE Sequence of structure IX analogous to the C-terminal, AA sequence of the
DE beta subunits of human chorionic gonadotropin.
XX
KW Antigen; immunogen; contraceptive; fertility control.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 6
FT /label= Aba
FT /note= "Aba=alpha-aminobutyric acid"
XX
PN US4302386-A.
XX

```
PD   24-NOV-1981.
XX
PF   07-MAY-1973;   73US-00357892.
XX
PR   07-MAY-1973;   73US-00357892.
PR   16-OCT-1973;   73US-00406821.
PR   22-APR-1974;   74US-00462955.
PR   14-OCT-1975;   75US-00622031.
PR   25-AUG-1978;   78US-00936876.
PR   16-JAN-1980;   80US-00112628.
PR   20-NOV-1981;   81US-00323690.
PR   04-MAR-1983;   83US-00472190.
PR   15-JUL-1987;   87US-00073570.
PR   15-JUL-1987;   87US-00073769.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Stevens VC;
XX
DR   WPI; 1981-92939D/50.
XX
PT   Modified hormones and non-hormonal proteins - useful as antigens for
PT   admin. to produce antibodies for fertility control etc.
XX
PS   Claim 12; Col 40; 25pp; English.
XX
CC   The inventors claim modified hormones and non-hormonal proteins useful as
CC   antigens. 1-40 modifying gps. are pref. added per protein or hormone,
CC   esp. 10-26 gps., partic. to FSH, HCG, LH, HPL, prolactin, gastrin,
CC   angiotensin II, growth hormone, somatomedian, beta-sub units of HCG and
CC   FSH. The polypeptide may be modified by addn. of at least one
CC   diazosulphanilic acid, dinitrophenol, trinitrophenol, S-
CC   acetomercaptosuccinic anhydride, (poly)tyrosine, (poly)alanine,
CC   (poly)dextran or thyroglobulin, natural proteins, polymerised sugars,
CC   serum protein or a virus. Typically, sucrose copolymerised with
CC   epichlorohydrin is used for the modification, or diptheria virus or
CC   toxoid is used. Structure VIII incorporates two sequences, one which may
CC   be recognised in structure V and the other in structure IV. These two
CC   sequence are separated by two spacer sequences of Proline components and
CC   one is joined with an intermediately disposed Cysteine component which
CC   serves a conjugation function. Structure VIIIa represents structure VIII
CC   with additional Pro spacer residues to provide a widened spacing of
CC   determinant sites. Structure XI mimics sequences from the beta subunit of
CC   HCG with the addition of a Proline spacer sequence, a Cys component at
CC   the C-terminal, and an Aba substituted for Cys at the 110 posn. Structure
CC   XIII is similar to structure IX but does not contain the spacer conjugate
XX
SQ   Sequence 48 AA;

   AAP10195  Length: 48  May 13, 2004 16:42  Type: P  Check: 2297  ..

       1  DHPLTXDDPR FQDSSSSKKP PPSLPSPSRL PGPSDTPILP QPPPPPPC

!!AA_SEQUENCE 1.0
ID   AAP10544 standard; protein; 25 AA.
XX
AC   AAP10544;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Calcitonin-like resin peptide 3.
XX
KW   Biologically active peptide; calcitonin; tyrosine.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Protecting group is either S-n-alkyl or benzyl, 4
FT                   -methoxybenzyl, 3,4-dimethylbenzyl,4-chloro- benzyl,2,6-
FT                   dichloro-benzyl, 4-nitrobenzyl or benzhydryl"
FT   Modified-site   5
FT                   /note= "Protecting group = benzyloxycarbonyl, 2-
FT                   bromobenzyloxycarbonyl or 2-chloro- benzyloxycarbonyl"
FT   Modified-site   7
FT                   /label= Ser-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   9
FT                   /label= Glu-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   11
FT                   /note= "Protecting group = benzyloxycarbonyl, 2-
FT                   bromobenzyloxycarbonyl or 2-chloro- benzyloxycarbonyl"
FT   Modified-site   12
FT                   /note= "Protecting group = benzyloxycarbonyl, 2-
FT                   bromobenzyloxycarbonyl or 2-chloro- benzyloxycarbonyl"
FT   Modified-site   15
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   18
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   20
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   22
FT                   /label= Ser-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   24
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   25
FT                   /note= "bonded to benzhydrylamine resin"
XX
PN   US4304692-A.
XX
PD   08-DEC-1981.
XX
PF   24-JUL-1978;   78US-00927456.
XX
PR   24-JUL-1978;   78US-00927456.
PR   14-JUL-1980;   80US-00168102.
XX
PA   (ARMO ) ARMOUR & CO.
XX
PI   Hughes JL,  Seyler JK,  Liu RC;
XX
DR   WPI; 1981-96806D/52.
XX
PT   Resin peptide complexes - useful in prepn. of calcitonin-like peptide(s).
XX
PS   Claim 3; Page 16; 17pp; English.
XX
CC   The sequences given in AAP10542-4 are intermediates in the prepn. of
CC   biologically active peptides and esp. a peptide having 31 amino acid
CC   residues and which has calcitonin -like activity. It is similar in
CC   potency to salmon calcitonin but it is more stable and can be produced
CC   more economically. The major difference between native calcitonin and the
CC   synthetic molecule is the absence of a Tyr residue at position 22. The
CC   peptide of the invention are prepared by solid-phase synthesis
XX
SQ   Sequence 25 AA;
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   AAP10544  Length: 25  May 13, 2004 16:42  Type: P  Check: 5580  ..

       1  CVLGKLSQEL HKLQTPRTNT GSGTP

!!AA_SEQUENCE 1.0
ID   AAP10543 standard; protein; 31 AA.
XX
AC   AAP10543;
XX
DT   22-DEC-1992  (first entry)
XX
DE   Calcitonin-like resin peptide 2.
XX
KW   Biologically active peptide; calcitonin; tyrosine.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Protecting group on Cys1 and Cys8 is either S-n-
FT                   alkyl or benzyl, 4-methoxybenzyl, 3,4- dimethylbenzyl,4-
FT                   chloro-benzyl,2,6-dichloro- benzyl, 4-nitrobenzyl or
FT                   benzhydryl"
FT   Modified-site   2
FT                   /label= Ser-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   5
FT                   /label= Ser-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   6
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   7
FT                   /note= "Protecting group on Cys1 and Cys8 is either S-n-
FT                   alkyl or benzyl, 4-methoxybenzyl, 3,4- dimethylbenzyl,4-
FT                   chloro-benzyl,2,6-dichloro- benzyl, 4-nitrobenzyl or
FT                   benzhydryl"
FT   Modified-site   11
FT                   /note= "Protecting group = benzyloxycarbonyl, 2-
FT                   bromobenzyloxycarbonyl or 2-chloro- benzyloxycarbonyl"
FT   Modified-site   13
FT                   /label= Ser-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   15
FT                   /label= Glu-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   17
FT                   /note= "Protecting group = benzyloxycarbonyl, 2-
FT                   bromobenzyloxycarbonyl or 2-chloro- benzyloxycarbonyl"
FT   Modified-site   18
FT                   /note= "Protecting group = benzyloxycarbonyl, 2-
FT                   bromobenzyloxycarbonyl or 2-chloro- benzyloxycarbonyl"
FT   Modified-site   21
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   23
FT                   /note= "Protecting group = nitro or tosyl"
FT   Modified-site   24
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   26
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   28
FT                   /label= Ser-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   30
FT                   /label= Thr-Bz
FT                   /note= "Protecting group = benzyl, 4-methoxybenzyl, 3,4-
FT                   dimethylbenzyl, 4-chlorobenzyl, 2,6-dichlorobenzyl, 4-
FT                   nitrobenzyl or benzhydryl"
FT   Modified-site   31
FT                   /note= "bonded to benzhydrylamine resin"
XX
PN   US4304692-A.
XX
PD   08-DEC-1981.
XX
PF   24-JUL-1978;   78US-00927456.
XX
PR   24-JUL-1978;   78US-00927456.
PR   14-JUL-1980;   80US-00168102.
XX
PA   (ARMO ) ARMOUR & CO.
XX
PI   Hughes JL,  Seyler JK,  Liu RC;
XX
DR   WPI; 1981-96806D/52.
XX
PT   Resin peptide complexes - useful in prepn. of calcitonin-like peptide(s).
XX
PS   Claim 2; Page 16; 17pp; English.
XX
CC   The sequences given in AAP10542-4 are intermediates in the prepn. of
CC   biologically active peptides and esp. a peptide having 31 amino acid
CC   residues and which has calcitonin -like activity. It is similar in
CC   potency to salmon calcitonin but it is more stable and can be produced
CC   more economically. The major difference between native calcitonin and the
CC   synthetic molecule is the absence of a Tyr residue at position 22. The
CC   peptide of the invention are prepared by solid-phase synthesis
XX
SQ   Sequence 31 AA;

   AAP10543  Length: 31  May 13, 2004 16:42  Type: P  Check: 8940  ..

       1  CSNLSTCVLG KLSQELHKLQ TPRTNTGSGT P

!!AA_SEQUENCE 1.0
ID   AAP10035 standard; protein; 227 AA.
XX
AC   AAP10035;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of VP3 encoded by part of the sequence of DNA insert FMDV-1448.
XX
KW   Vaccine; foot and mouth disease; antigen.
XX
OS   Foot-and-mouth disease virus.
XX
FH   Key             Location/Qualifiers
FT   Region          9. .227
FT                   /note= "encoded by AAN10026"
XX
PN   EP40922-A.
```

XX
PD 02-DEC-1981.
XX
PF 12-MAY-1980; 80GB-00015635.
XX
PR 12-MAY-1980; 80GB-00015635.
PR 12-MAY-1980; 80GB-00015655.
PR 15-AUG-1980; 80GB-00026661.
PR 08-SEP-1980; 80GB-00028983.
PR 11-MAY-1981; 81GB-00014309.
XX
PA (BIOJ) BIOGEN NV.
PA (BIOJ) BIOGEN NV.
XX
PI Nofschneid PH, Kupper HA, Schaller H, Keller W;
XX
DR WPI; 1981-91439D/50.
DR N-PSDB; AAN10026.
XX
PT Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT from DNA sequences by transformed hosts etc.
XX
PS Example; Fig 11; 90pp; English.
XX
CC The inventors claim DNA sequences that encode antigenic polypeptides of
CC FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC on 28-OCT-2003 to standardise OS field)
XX
SQ Sequence 227 AA;

AAP10035 Length: 227 May 13, 2004 16:42 Type: P Check: 7893 ..

1 FIFPVAXXDG YGGLVTTDPK TADPVYGKVF NPPRNQLPGR FTNLLDVAEA

51 CPTFLRFEGG VPYVTTKTDS DTLLAQFDMS LAAKQMSNTF LAGLAQYYTQ

101 YSGTINLHFM XTGPTDAKAR YMVAYAPLGM EPPKTPEAAA HCIHAEWDTG

151 LNSKFTFSIP YLSAADYAYT ASGVAETTNV QGWVCLFQIT HGKADGDALV

201 VLASAGKDFE LRLPVDARAE TTSAGES

!!AA_SEQUENCE 1.0
ID AAP10033 standard; protein; 21 AA.
XX
AC AAP10033;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 13-AUG-1992 (first entry)
XX
DE Sequence of at least a portion of capsid protein VP1 encoded by a region
DE of FMDV-715.
XX
KW Vaccine; foot and mouth disease; antigen.
XX
OS Foot-and-mouth disease virus.
XX
PN EP40922-A.
XX
PD 02-DEC-1981.
XX
PF 12-MAY-1980; 80GB-00015635.
XX
PR 12-MAY-1980; 80GB-00015635.
PR 12-MAY-1980; 80GB-00015655.
PR 15-AUG-1980; 80GB-00026661.
PR 08-SEP-1980; 80GB-00028983.
PR 11-MAY-1981; 81GB-00014309.
XX
PA (BIOJ) BIOGEN NV.
PA (BIOJ) BIOGEN NV.
XX
PI Nofschneid PH, Kupper HA, Schaller H, Keller W;
XX
DR WPI; 1981-91439D/50.
DR N-PSDB; AAN10024.
XX
PT Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT from DNA sequences by transformed hosts etc.
XX
PS Example; Fig 5; 90pp; English.
XX
CC The inventors claim DNA sequences that encode antigenic polypeptides of
CC FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC on 28-OCT-2003 to standardise OS field)
XX
SQ Sequence 21 AA;

AAP10033 Length: 21 May 13, 2004 16:42 Type: P Check: 7995 ..

1 GGGQIQRRQH TDVSFIMNRF V

!!AA_SEQUENCE 1.0
ID AAP10034 standard; protein; 320 AA.
XX
AC AAP10034;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 13-AUG-1992 (first entry)
XX
DE Sequence of VP1 encoded by part of the sequence of DNA insert FMDV-1034.
XX
KW Vaccine; foot and mouth disease; antigen.
XX
OS Foot-and-mouth disease virus.
XX
FH Key Location/Qualifiers
FT Protein 21. .234
FT /label= VP1
XX
PN EP40922-A.
XX
PD 02-DEC-1981.
XX
PF 12-MAY-1980; 80GB-00015635.
XX
PR 12-MAY-1980; 80GB-00015635.
PR 12-MAY-1980; 80GB-00015655.
PR 15-AUG-1980; 80GB-00026661.
PR 08-SEP-1980; 80GB-00028983.
PR 11-MAY-1981; 81GB-00014309.
XX
PA (BIOJ) BIOGEN NV.
PA (BIOJ) BIOGEN NV.
XX
PI Nofschneid PH, Kupper HA, Schaller H, Keller W;
XX
DR WPI; 1981-91439D/50.
DR N-PSDB; AAN10025.
XX
PT Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT from DNA sequences by transformed hosts etc.
XX
PS Example; Fig 9-10; 90pp; English.
XX
CC The inventors claim DNA sequences that encode antigenic polypeptides of

```
CC   FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC   FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC   particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC   FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC   on 28-OCT-2003 to standardise OS field)
XX
SQ   Sequence 320 AA;

  AAP10034  Length: 320  May 13, 2004 16:42  Type: P  Check: 2613  ..

       1  VLASAGKDFE LRLPVDARAE TTSAGESADP VTTTVENYGG ETQIQRRQHT

      51  DVSFIMDRFV KVTPQNQINI LDLMQIPSHT LVGALLRAST YYFSDLEIAV

     101  KHEGDLTWVP NGAPEKALDN TTNPTAYHKA PLTRLALPHT APHRVLATVY

     151  NGECRYNRNA VPNLRGDLQV LAQKVARTLP TSFNYGAIKA TRVTELLYRM

     201  KRAETYCPRP LLAIHPTEAR HKQKIVAPVK QTLNFDLLKL AGDVESNPGP

     251  FFFSDVRSNF SKLVETTNQM QEDMSTKHGP DFNRLVFAFE ELAIGVKAIR

     301  TGLDEAKPWY KLIKLLSRLS

!!AA_SEQUENCE 1.0
ID   AAP10030 standard; protein; 205 AA.
XX
AC   AAP10030;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of an antigenic FMDV polypeptide.
XX
KW   Vaccine; foot and mouth disease; antigen.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP40922-A.
XX
PD   02-DEC-1981.
XX
PF   12-MAY-1980;   80GB-00015635.
XX
PR   12-MAY-1980;   80GB-00015635.
PR   12-MAY-1980;   80GB-00015655.
PR   15-AUG-1980;   80GB-00026661.
PR   08-SEP-1980;   80GB-00028983.
PR   11-MAY-1981;   81GB-00014309.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Nofschneid PH,  Kupper HA,  Schaller H,  Keller W;
XX
DR   WPI; 1981-91439D/50.
XX
PT   Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT   from DNA sequences by transformed hosts etc.
XX
PS   Claim 25; Page 69; 90pp; English.
XX
CC   The inventors claim DNA sequences that encode antigenic polypeptides of
CC   FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC   FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC   particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC   FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC   on 28-OCT-2003 to standardise OS field)
XX
SQ   Sequence 205 AA;

  AAP10030  Length: 205  May 13, 2004 16:42  Type: P  Check: 7903  ..

       1  DPVTTTVENY GGETQIQRRQ HTDVSFIMDR FVKVTPGNQI NILDLMQIPS

      51  HYLVGALLRA STYYYSDLEI AVKHEGDLTT VPNGAPEKAL DNTTNPTAYH

     101  KAPLTRLALP HTAPHRVLAY VYNGECRYNR NAVPNLRGDL QVLAQKVART

     151  LPTSFNYGAI KATRVTELLY RMKRAEYYCP RPLLAIHPTE ARHKQKIVAP

     201  VKQTL

!!AA_SEQUENCE 1.0
ID   AAP10031 standard; protein; 284 AA.
XX
AC   AAP10031;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of an antigenic FMDV polypeptide.
XX
KW   Vaccine; foot and mouth disease; antigen.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP40922-A.
XX
PD   02-DEC-1981.
XX
PF   12-MAY-1980;   80GB-00015635.
XX
PR   12-MAY-1980;   80GB-00015635.
PR   12-MAY-1980;   80GB-00015655.
PR   15-AUG-1980;   80GB-00026661.
PR   08-SEP-1980;   80GB-00028983.
PR   11-MAY-1981;   81GB-00014309.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Nofschneid PH,  Kupper HA,  Schaller H,  Keller W;
XX
DR   WPI; 1981-91439D/50.
XX
PT   Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT   from DNA sequences by transformed hosts etc.
XX
PS   Claim 25; Page 69-70; 90pp; English.
XX
CC   The inventors claim DNA sequences that encode antigenic polypeptides of
CC   FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC   FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC   particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC   FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC   on 28-OCT-2003 to standardise OS field)
XX
SQ   Sequence 284 AA;

  AAP10031  Length: 284  May 13, 2004 16:42  Type: P  Check: 6142  ..

       1  DPVTTTVENY GGETQIQRRQ HTDVSFIMDR FVKVTPQNQI NILDLMQIPS

      51  HTLVGALLRA STYYFSDLEI AVKHEGDLTT VPNGAPEKAL DNTTNPTAYH

     101  KAPLTRLALL HTAPHRVLAT VYNGECRYNR NAVPNLRGDL QVLAQKVART

     151  LPTSFNYGAI KATRVTELLY RMKRAETYCP RPLLAIHPTE AAHKQKIVAP

     201  VKQTLNFDLL KLAGDVESNP GPFFFSDVRS NFSKLVETTN QMQEDMSTKH
```

```
    251  GPDFNRLVFA FEELAIGVKA IRTGLDEAKP PYKL

!!AA_SEQUENCE 1.0
ID   AAP10029 standard; protein; 213 AA.
XX
AC   AAP10029;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of an antigenic FMDV polypeptide.
XX
KW   Vaccine; foot and mouth disease; antigen.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP40922-A.
XX
PD   02-DEC-1981.
XX
PF   12-MAY-1980;   80GB-00015635.
XX
PR   12-MAY-1980;   80GB-00015635.
PR   12-MAY-1980;   80GB-00015655.
PR   15-AUG-1980;   80GB-00026661.
PR   08-SEP-1980;   80GB-00028983.
PR   11-MAY-1981;   81GB-00014309.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Nofschneid PH,  Kupper HA,  Schaller H,  Keller W;
XX
DR   WPI; 1981-91439D/50.
XX
PT   Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT   from DNA sequences by transformed hosts etc.
XX
PS   Claim 25; Page 69; 90pp; English.
XX
CC   The inventors claim DNA sequences that encode antigenic polypeptides of
CC   FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC   FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC   particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC   FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC   on 28-OCT-2003 to standardise OS field)
XX
SQ   Sequence 213 AA;

  AAP10029  Length: 213  May 13, 2004 16:42  Type: P  Check: 1056  ..

      1  TTSAGESADP VTTTVENYGG ETQIQRRQHT DVSFIMDRFV KVTPQNQINI

     51  LDLMQIPSHT LVGALLRAST YYFSDLEIAV KHEGDLTTVP NGAPEKALDN

    101  TTNPTAYHKA PLTRLALPHT APHRVLATVY NGECRYNRNA VPNLRGDLQV

    151  LAQKVARTLP TSFNTGAIKA TRVTELLYRM KRAETYCPRP LLAIHPTEAR

    201  HKQKLVAPVK QTL

!!AA_SEQUENCE 1.0
ID   AAP10032 standard; protein; 211 AA.
XX
AC   AAP10032;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   13-AUG-1992  (first entry)
XX
DE   Sequence of an antigenic FMDV polypeptide.
XX
KW   Vaccine; foot and mouth disease; antigen.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP40922-A.
XX
PD   02-DEC-1981.
XX
PF   12-MAY-1980;   80GB-00015635.
XX
PR   12-MAY-1980;   80GB-00015635.
PR   12-MAY-1980;   80GB-00015655.
PR   15-AUG-1980;   80GB-00026661.
PR   08-SEP-1980;   80GB-00028983.
PR   11-MAY-1981;   81GB-00014309.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Nofschneid PH,  Kupper HA,  Schaller H,  Keller W;
XX
DR   WPI; 1981-91439D/50.
XX
PT   Polypeptide(s) with foot and mouth disease antigen specificity - produced
PT   from DNA sequences by transformed hosts etc.
XX
PS   Claim 26; Page 70; 90pp; English.
XX
CC   The inventors claim DNA sequences that encode antigenic polypeptides of
CC   FMDV selected from FMDV-715, FMDV-144, FMDV-1034, FMDV-1448, FMDV-1824,
CC   FMDV-1933, VP1-1, VP1-5 FMDV-1034-Bal or FMDV-1034-Bal(EcoRI-HindIII). In
CC   particlar, FMDV serotypes O, A, C, SAT 1, SAT 2, SAT 3, and Asian type I.
CC   FMDV antigenic polypeptides are also claimed. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC   on 28-OCT-2003 to standardise OS field)
XX
SQ   Sequence 211 AA;

  AAP10032  Length: 211  May 13, 2004 16:42  Type: P  Check: 1195  ..

      1  DGYGGLVTTD PKTADPVYGK VFNPPRNQLP GRFTNLLDVA EACPTFLRFE

     51  GGVPYVTTKT DSDTLLAQFD MSLAAKQMSN TFLAGLAQYY TQYSGTINLH

    101  FMTGPTDAKA RYMVAYAPLG MEPPKTPEAA AHCIHAEWDT GLNSKFTFSI

    151  PYLSAADYAY TASGVAETTN VQGWVCLFQI THGKADGDAL VVLASAGKDF

    201  ELRLPVDARA E

!!AA_SEQUENCE 1.0
ID   AAP10385 standard; protein; 45 AA.
XX
AC   AAP10385;
XX
DT   25-MAR-2003  (revised)
DT   10-MAR-2003  (revised)
DT   17-DEC-1992  (first entry)
XX
DE   Antitumour agent from barley or wheat.
XX
KW   antitumour; cancer; Ehrlich's ascites carcinoma; sarcoma 180A;
KW   lymphocytic leukaemia L1210; triticum monococcum; hordeum agriocrithon;
KW   hordeum spontaneum.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  3. .39
FT   Disulfide-bond  4. .31
FT   Disulfide-bond  12. .29
```

```
FT   Disulfide-bond  16. .25
XX
PN   JP56049342-A.
XX
PD   02-MAY-1981.
XX
PF   29-SEP-1979;   79JP-00126024.
XX
PR   29-SEP-1979;   79JP-00126024.
XX
PA   (SUNC ) SUN CHEM CORP.
XX
DR   WPI; 1981-45128D/25.
XX
PT   Polypeptide antitumour agent - isolated from barley or wheat.
XX
PS   Claim 1; Page 1; 7pp; Japanese.
XX
CC   This sequence represents an antitumour agent, abundant in wheat and
CC   barley. It is effective in the inhibition of the growth of transformed
CC   cells (released from contact inhibition) in a tissue culture test using
CC   mouse cell PV4. It is also effective against Ehrlichs ascites carcinoma ,
CC   Sarcoma 180A, and lymphocyte leukaemia L1210 in mice. (Updated on 10-MAR-
CC   2003 to add missing OS field.) (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 45 AA;

   AAP10385  Length: 45  May 13, 2004 16:42  Type: P  Check: 8460  ..

       1  KSCCRSTLGR NCYNLCRVRG AQKLCAGVCR CKLTSSGKCP TGFPK

!!AA_SEQUENCE 1.0
ID   AAP10597 standard; peptide; 26 AA.
XX
AC   AAP10597;
XX
DT   25-MAR-2003  (revised)
DT   24-DEC-1992  (first entry)
XX
DE   Intestinal glucagon antigen #3.
XX
KW   hapten; antibody; sugar metabolism; diabetes; duodenal ulcer.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Peptide         19. .26
FT                   /note= "antigen"
XX
PN   BE888906-A.
XX
PD   23-NOV-1981.
XX
PF   21-MAY-1980;   80JP-00068040.
XX
PR   21-MAY-1980;   80JP-00068040.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
PI   Yanaihara N;
XX
DR   WPI; 1981-91122D/50.
XX
PT   Intestinal glucagon antigen prodn. - by coupling specified peptide(s) to
PT   support, used e.g. in diagnosis of diabetes.
XX
PS   Disclosure; Page 3; 35pp; French.
XX
CC   This peptide sequence is used as a hapten to produce antibodies specific
CC   to intestinal glucagon. The hapten is fixed to a support and is opt.
CC   deleted by 1-19 N-terminal amino acids. See also AAP10595 and AAP10596.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 26 AA;

   AAP10597  Length: 26  May 13, 2004 16:42  Type: P  Check: 6980  ..

       1  KYLDSRRAQD FVQWLMNTKR NKNNIA

!!AA_SEQUENCE 1.0
ID   AAP10596 standard; peptide; 27 AA.
XX
AC   AAP10596;
XX
DT   25-MAR-2003  (revised)
DT   24-DEC-1992  (first entry)
XX
DE   Intestinal glucagon antigen #2.
XX
KW   hapten; antibody; sugar metabolism; diabetes; duodenal ulcer.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Peptide         20. .27
FT                   /note= "antigen"
XX
PN   BE888906-A.
XX
PD   23-NOV-1981.
XX
PF   21-MAY-1980;   80JP-00068040.
XX
PR   21-MAY-1980;   80JP-00068040.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
PI   Yanaihara N;
XX
DR   WPI; 1981-91122D/50.
XX
PT   Intestinal glucagon antigen prodn. - by coupling specified peptide(s) to
PT   support, used e.g. in diagnosis of diabetes.
XX
PS   Disclosure; Page 17; 35pp; French.
XX
CC   This peptide sequence is used as a hapten to produce antibodies specific
CC   to intestinal glucagon. The hapten is fixed to a support and is opt.
CC   deleted by 1-20 N-terminal amino acids. See also AAP10595 and AAP10597.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 27 AA;

   AAP10596  Length: 27  May 13, 2004 16:42  Type: P  Check: 8955  ..

       1  SKYLDSRRAE DFVQWLMNTK RNKNNIA

!!AA_SEQUENCE 1.0
ID   AAP10186 standard; peptide; 29 AA.
XX
AC   AAP10186;
XX
DT   25-MAR-2003  (revised)
DT   16-AUG-2002  (revised)
DT   19-AUG-1992  (first entry)
XX
DE   Sequence of analgesic peptide.
XX
KW   Opiate receptor binding affinity; analgesic; beta-endorphin.
XX
OS   Oncorhynchus keta.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= H-Y
```

```
FT   Modified-site   29
FT                   /label= Q-OH
XX
PN   EP34721-A.
XX
PD   02-SEP-1981.
XX
PF   01-FEB-1980;   80JP-00011868.
XX
PR   01-FEB-1980;   80JP-00011868.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Masahiko F,  Mitsuhiro W,  Chieko K;
XX
DR   WPI; 1981-66308D/37.
XX
PT   Polypeptide analgesic, i.e. des:acetyl salmon endorphin - with greater
PT   opiate binding strength than human beta-endorphin.
XX
PS   Claim 1; Page 30; 31pp; English.
XX
CC   The opiate receptor binding strength of the peptide of the invention is
CC   2.71 times that of human beta-endorphin (3.05 times in presence of Na).
CC   It can be chemically synthesised more easily. Its toxicity is very low.
CC   Doses are e.g. 0.2-200 (pref. 10-80) mcg/day. It is pref. admin.
CC   parenterally, partic. by injection into the lumbar vertebrae. It may also
CC   be used as a growth hormone release or prolactin release stimulating
CC   agent, pref. by i.v. admin. (Updated on 16-AUG-2002 to add missing OS
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 29 AA;

  AAP10186  Length: 29  May 13, 2004 16:42  Type: P  Check: 3434  ..

     1  YGGFMKPYTK QSHKPLITLL KHITLKNEQ

!!AA_SEQUENCE 1.0
ID   AAP10053 standard; protein; 110 AA.
XX
AC   AAP10053;
XX
DT   25-MAR-2003  (revised)
DT   17-OCT-1992  (first entry)
XX
DE   Sequence of preproinsulin.
XX
KW   Hormone; insulin; diabetes.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .24
FT                   /label= presequence]
FT   Protein         25. .110
FT                   /label= proinsulin
XX
PN   BE885196-A.
XX
PD   31-DEC-1980.
XX
PF   12-SEP-1979;   79US-00075192.
XX
PR   12-SEP-1979;   79US-00075192.
PR   08-JUN-1982;   82US-00386338.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
DR   WPI; 1981-05762D/05.
DR   N-PSDB; AAN10052.
XX
PT   DNA transfer vectors contg. codes for human insulin precursors - used to
PT   transform microorganisms for insulin prodn.
XX
PS   Example; Fig 2; 50pp; French.
XX
CC   AAN10052 is an mRNA sequence derived from the cDNA insert in pcHI-1. The
CC   deduced amino acid sequence of the proinsulin it encodes corresponds
CC   precisely with that in Dayhoff M.D., Atlas of Protein Sequence and
CC   Structure, 5, Suppl. 2, pp. 127-130 (1976) and Suppl. 3, pp.150-151
CC   (1978). pcHI-1 was constructed using cDNA prepd. from RNA extracted from
CC   human insulinoma. (Updated on 25-MAR-2003 to correct PR field.) (Updated
CC   on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 110 AA;

  AAP10053  Length: 110  May 13, 2004 16:42  Type: P  Check: 4878  ..

     1  MALWMRLLPL LALLALWGPD PAAAFVNQHL CGSHLVEALY LVCGERGFFY

    51  TPKTRREAED LQVGQVELGG GPGAGSLQPL ALEGSLQKRG IVEQCCTSIC

   101  SLYQLENYCN

!!AA_SEQUENCE 1.0
ID   AAP10136 standard; peptide; 4 AA.
XX
AC   AAP10136;
XX
DT   25-MAR-2003  (revised)
DT   12-OCT-1992  (first entry)
XX
DE   Sequence of antiinflammatory oligopeptide deriv.
XX
KW   Antiinflammatory; rheumatic disease; therapy; allergy;
KW   immunopathological condition.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= Z-Gln
FT   Modified-site   2
FT                   /label= Lys(Z)
FT   Modified-site   4
FT                   /label= Arg-(MBS)-OH
FT                   /note= "MBS=4-Methoxybenzolsulfonyl"
XX
PN   DE2945239-A.
XX
PD   21-MAY-1981.
XX
PF   09-NOV-1979;   79DE-02945239.
XX
PR   09-NOV-1979;   79DE-02945239.
XX
PA   (TROP ) TROPONWERKE DINKLAGE & CO.
XX
PI   Dell HD,  Fruchtmann R,  Jacobi H,  Schoellnha G,  Vollbrecht DK;
XX
DR   WPI; 1981-38293D/22.
XX
PT   Antiinflammatory oligopeptide derivs. for e.g., rheumatism - contg.
PT   protected amino acid gp., attached to a lysine-proline-arginine
PT   tri:peptide chain.
XX
PS   Example; Page 16; 23pp; German.
XX
CC   The peptides of the invention are antiinflammatories and can be used to
CC   soothe, improve or heal inflammations of various origins, esp. rheumatic-
CC   type diseases, allergies and immunopathological conditions. Suitable
CC   doses are 5-500 (esp. 50-150) mg. AAP10130-P10139 are examples of the
CC   generic peptide (AAP10129) which is claimed. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 4 AA;
```

```
    AAP10136  Length: 4  May 13, 2004 16:42  Type: P  Check: 799  ..

       1  QKPR

!!AA_SEQUENCE 1.0
ID   AAP10601 standard; protein; 9 AA.
XX
AC   AAP10601;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (a).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Misc-difference 1
FT                   /label= CYS, OTHER
FT                   /note= "des-NH2-Cys"
FT   Misc-difference 9
FT                   /note= "D-form residue"
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
PS   Claim 2 + 3; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10601  Length: 9  May 13, 2004 16:42  Type: P  Check: 3372  ..

       1  CYFQNCPRA

!!AA_SEQUENCE 1.0
ID   AAP10162 standard; peptide; 9 AA.
XX
AC   AAP10162;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (1).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Misc-difference 8
FT                   /note= "D- or L-form residue; when Arg8 is L-Arg, Ala9 is
FT                   D-Ala and when Arg8 is D-Arg, Ala9 is L-Ala"
FT   Misc-difference 9
FT                   /note= "D- or L-form residue; when Arg8 is L-Arg, Ala9 is
FT                   D-Ala and when Arg8 is D-Arg, Ala9 is L-Ala"
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
PS   Claim 1; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10162  Length: 9  May 13, 2004 16:42  Type: P  Check: 3372  ..

       1  CYFQNCPRA

!!AA_SEQUENCE 1.0
ID   AAP10603 standard; protein; 9 AA.
XX
AC   AAP10603;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (c).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "des-NH2-Cys, which condenses with C4 of ABU6"
FT   Modified-site   6
FT                   /label= ABU
FT                   /note= "C4 of ABU condenses with des-NH2-Cys1"
FT   Misc-difference 9
FT                   /note= "D-form residue"
```

```
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
PS   Claim 5; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10603  Length: 9  May 13, 2004 16:42  Type: P  Check: 3498  ..

      1  CYFQNXPRA

!!AA_SEQUENCE 1.0
ID   AAP10163 standard; protein; 9 AA.
XX
AC   AAP10163;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (2).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "des-NH2-ABU; C4 of des-NH2-ABU condenses with
FT                   Cys6"
FT   Modified-site   6
FT                   /note= "Cys6 condenses with C4 of des-NH2-ABU1"
FT   Misc-difference 8
FT                   /note= "D- or L-form residue; when Arg8 is L-Arg, Ala9 is
FT                   D-Ala and when Arg8 is D-Arg, Ala9 is L-Ala"
FT   Misc-difference 9
FT                   /note= "D- or L-form residue; when Arg8 is L-Arg, Ala9 is
FT                   D-Ala and when Arg8 is D-Arg, Ala9 is L-Ala"
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
PS   Claim 1; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10163  Length: 9  May 13, 2004 16:42  Type: P  Check: 3393  ..

      1  XYFQNCPRA

!!AA_SEQUENCE 1.0
ID   AAP10164 standard; protein; 9 AA.
XX
AC   AAP10164;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (3).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "des-NH2-Cys, which condenses with C4 of ABU6"
FT   Modified-site   6
FT                   /label= ABU
FT                   /note= "C4 of ABU condenses with des-NH2-Cys1"
FT   Misc-difference 8
FT                   /note= "D- or L-form residue; when Arg8 is L-Arg, Ala9 is
FT                   D-Ala and when Arg8 is D-Arg, Ala9 is L-Ala"
FT   Misc-difference 9
FT                   /note= "D- or L-form residue; when Arg8 is L-Arg, Ala9 is
FT                   D-Ala and when Arg8 is D-Arg, Ala9 is L-Ala"
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
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PS   Claim 1; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10164  Length: 9  May 13, 2004 16:42  Type: P  Check: 3498  ..

       1  CYFQNXPRA

!!AA_SEQUENCE 1.0
ID   AAP10602 standard; protein; 9 AA.
XX
AC   AAP10602;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (b).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "des-NH2-ABU; C4 of des-NH2-ABU condenses with
FT                   Cys6"
FT   Modified-site   6
FT                   /note= "Cys6 condenses with C4 of des-NH2-ABU1"
FT   Misc-difference 9
FT                   /note= "D-form residue"
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
PS   Claim 4; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10602  Length: 9  May 13, 2004 16:42  Type: P  Check: 3393  ..

       1  XYFQNCPRA

!!AA_SEQUENCE 1.0
ID   AAP10604 standard; protein; 9 AA.
XX
AC   AAP10604;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Vasopressin analogue (d).
XX
KW   Factor VIII; plasminogen activator; vasoconstriction; antidiuretic;
KW   haemophilia; von Willebrand's disease; thrombosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .6
FT   Misc-difference 1
FT                   /label= CYS, OTHER
FT                   /note= "des-NH2-Cys"
FT   Misc-difference 8
FT                   /note= "D-form residue"
XX
PN   EP29659-A.
XX
PD   03-JUN-1981.
XX
PF   30-OCT-1979;   79US-00089510.
XX
PR   30-OCT-1979;   79US-00089510.
XX
PA   (CORT/) CORT J H.
PA   (MOUN ) MOUNT SINAI HOSPITAL RES FOUND.
XX
PI   Cort JH,  Fischman A;
XX
DR   WPI; 1981-42402D/24.
XX
PT   Vasopressin analogues - useful for prodn. of factor eight and plasminogen
PT   activator in haemophilia conditions etc.
XX
PS   Claim 6; Page 19; 23pp; English.
XX
CC   The C-terminal of this analogue is amidated. See also AAP10162-64. The
CC   vasopressin analogue produces significant and prolonged increases in
CC   Factor VIII and plasminogen activator in mammals, without undesirable
CC   vasoconstriction or antidiuretic side effects. It is esp. valuable for
CC   treating haemophilia (types A and B), von Willebrand's disease and
CC   thrombotic subjects. In healthy blood donors it increases the Factor VIII
CC   levels and possibly plasminogen activator levels. Dose is 100 micrograms
CC   - 1 mg/ml i.v. or s.c. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP10604  Length: 9  May 13, 2004 16:42  Type: P  Check: 3372  ..

       1  CYFQNCPRA

!!AA_SEQUENCE 1.0
ID   AAP10124 standard; protein; 45 AA.
XX
AC   AAP10124;
XX
DT   25-MAR-2003  (revised)
DT   15-OCT-1992  (first entry)
XX
DE   Generic sequence of polypeptide with antitumour activity.
XX
KW   Antitumour agent; anticancer; tumouricide.
```

```
XX
OS   Triticum aestivum.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  3. .39
FT   Disulfide-bond  4. .31
FT   Misc-difference 5
FT                   /label= K, N, L, T, D
FT                   /note= "alternatively = R"
FT   Disulfide-bond  12. .29
FT   Disulfide-bond  16. .25
FT   Misc-difference 27
FT                   /label= K, N, L, T, D
FT                   /note= "alternatively = G"
FT   Misc-difference 33
FT                   /label= K, N, L, T, D
FT                   /note= "alternatively = I"
FT   Misc-difference 34
FT                   /label= K, N, L, T, D
FT                   /note= "alternatively = S"
FT   Misc-difference 42
FT                   /label= K, N, L, T, D
FT                   /note= "alternatively = G"
XX
PN   DE2940505-A.
XX
PD   23-APR-1981.
XX
PF   23-FEB-1978;   78JP-00020539.
XX
PR   23-FEB-1978;   78JP-00020539.
PR   05-OCT-1979;   79DE-02940505.
XX
PA   (SUNR ) SUNTORY LTD.
XX
PI   Toyotshima K,  Nakanishi T,  Hakura A,  Yoshizumi H;
XX
DR   WPI; 1981-30911D/18.
XX
PT   Antitumour polypeptide cpds. SP1 and SP2 - obtd. from wheat or barley
PT   flour by treatment with acid and chromatography of the neutralised
PT   supernatant on CMC.
XX
PS   Claim 1; Page 1; 37pp; German.
XX
CC   SP1 (AAP10125) and SP2 (AAP10126) are two specific examples of the
CC   generic polypeptide (AAP10124) obtd. from wheat or barley flour by
CC   treatment with acid and chromatography of the neutralised supernatant on
CC   CMC. They all have antitumour activity. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 45 AA;

   AAP10124  Length: 45  May 13, 2004 16:42  Type: P  Check: 9505  ..

       1  KSCCXSTLGR NCYNLCRARG AQKLCAXVCR CKXXSGLSCP KXFPK

!!AA_SEQUENCE 1.0
ID   AAP10125 standard; protein; 45 AA.
XX
AC   AAP10125;
XX
DT   25-MAR-2003  (revised)
DT   15-OCT-1992  (first entry)
XX
DE   Sequence of antitumour polypeptide SP1.
XX
KW   Antitumour agent; anticancer; tumouricide.
XX
OS   Triticum aestivum.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  3. .39
FT   Disulfide-bond  4. .31
FT   Disulfide-bond  12. .29
FT   Disulfide-bond  16. .25
XX
PN   DE2940505-A.
XX
PD   23-APR-1981.
XX
PF   23-FEB-1978;   78JP-00020539.
XX
PR   23-FEB-1978;   78JP-00020539.
PR   05-OCT-1979;   79DE-02940505.
XX
PA   (SUNR ) SUNTORY LTD.
XX
PI   Toyotshima K,  Nakanishi T,  Hakura A,  Yoshizumi H;
XX
DR   WPI; 1981-30911D/18.
XX
PT   Antitumour polypeptide cpds. SP1 and SP2 - obtd. from wheat or barley
PT   flour by treatment with acid and chromatography of the neutralised
PT   supernatant on CMC.
XX
PS   Claim 2; Page 2; 37pp; German.
XX
CC   SP1 (AAP10125) and SP2 (AAP10126) are two specific examples of the
CC   generic polypeptide (AAP10124) obtd. from wheat or barley flour by
CC   treatment with acid and chromatography of the neutralised supernatant on
CC   CMC. They all have antitumour activity. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 45 AA;

   AAP10125  Length: 45  May 13, 2004 16:42  Type: P  Check: 7798  ..

       1  KSCCKSTLGR NCYNLCRARG AQKLCANVCR CKLTSGLSCP KDFPK

!!AA_SEQUENCE 1.0
ID   AAP10126 standard; protein; 45 AA.
XX
AC   AAP10126;
XX
DT   25-MAR-2003  (revised)
DT   15-OCT-1992  (first entry)
XX
DE   Sequence of antitumour polypeptide SP2.
XX
KW   Antitumour agent; anticancer; tumouricide.
XX
OS   Triticum aestivum.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  3. .39
FT   Disulfide-bond  4. .31
FT   Disulfide-bond  12. .29
FT   Disulfide-bond  16. .25
XX
PN   DE2940505-A.
XX
PD   23-APR-1981.
XX
PF   23-FEB-1978;   78JP-00020539.
XX
PR   23-FEB-1978;   78JP-00020539.
PR   05-OCT-1979;   79DE-02940505.
XX
PA   (SUNR ) SUNTORY LTD.
XX
PI   Toyotshima K,  Nakanishi T,  Hakura A,  Yoshizumi H;
XX
DR   WPI; 1981-30911D/18.
XX
PT   Antitumour polypeptide cpds. SP1 and SP2 - obtd. from wheat or barley
```

```
PT   flour by treatment with acid and chromatography of the neutralised
PT   supernatant on CMC.
XX
PS   Claim 3; Page 3; 37pp; German.
XX
CC   SP1 (AAP10125) and SP2 (AAP10126) are two specific examples of the
CC   generic polypeptide (AAP10124) obtd. from wheat or barley flour by
CC   treatment with acid and chromatography of the neutralised supernatant on
CC   CMC. They all have antitumour activity. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 45 AA;

  AAP10126  Length: 45  May 13, 2004 16:42  Type: P  Check: 7637  ..

      1  KSCCRSTLGR NCYNLCRARG AQKLCAGVCR CKISSGLSCP KGFPK

!!AA_SEQUENCE 1.0
ID   AAP10016 standard; protein; 187 AA.
XX
AC   AAP10016;
XX
DT   25-MAR-2003  (revised)
DT   19-OCT-1992  (first entry)
XX
DE   Sequence of fibroblast interferon and its putative signal peptide encoded
DE   by plasmid TpIF 319-13.
XX
KW   Interferon; antiviral agent.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .21
FT                   /label= signal
XX
PN   EP28033-A.
XX
PD   06-MAY-1981.
XX
PF   30-OCT-1980;   80EP-00106685.
XX
PR   30-OCT-1979;   79JP-00139289.
PR   19-MAR-1980;   80JP-00033931.
XX
PA   (NICA-) JAPAN FOUND CANCER RES.
PA   (GANK-) GAN KENKYUKAI ZH.
XX
PI   Sugano H,  Muramatsu M,  Taniguchi T;
XX
DR   WPI; 1981-34772D/20.
DR   N-PSDB; AAN10009.
XX
PT   DNA coding for poly:peptide with interferon activity - useful in prepn.
PT   of human interferon in large amounts.
XX
PS   Example; Table 5, Page 18; 22pp; English.
XX
CC   The inventors claim recombinant plasmid TpIF 319-13 which contains cDNA
CC   (AAN10009) prepd. from mRNA extracted from human fibroblasts. TpIF 319-13
CC   transformed in E. coli has been deposited under accession number ATCC
CC   31712, which is claimed. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 187 AA;

  AAP10016  Length: 187  May 13, 2004 16:42  Type: P  Check: 1974  ..

      1  MTNKCLLQIA LLLCFSTTAL SMSYNLLGFL QRSSNFQCQK LLWQLNGRLE

     51  YCLKDRMNFD IPEEIKQLQQ FQKEDAALTI YEMLQNIFAI FRQDSSSTGW

    101  NETIVENLLA NVYHQINHLK TVLEEKLEKE DFTRGKLMSS LHLKRYYGRI

    151  LHYLKAKEYS HCAWTIVRVE ILRNFYFINR LTGYLRN

!!AA_SEQUENCE 1.0
ID   AAP10539 standard; peptide; 6 AA.
XX
AC   AAP10539;
XX
DT   25-MAR-2003  (revised)
DT   15-JAN-1993  (first entry)
XX
DE   Antifungal cyclic hexapeptide.
XX
KW   Antibiotic; A-30912; S31794-F1; antifungal; Trichophyton; Candida;
KW   disinfectant; antiseptic; cyclic.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= Orn
FT                   /note= "(1)N-alpha-acylated by alk(en)ylcarboxamido-
FT                   alkyl-(or -aryl-)carbonyl; (2)4,5-di-hydroxy- substituted
FT                   ; (3)has omega-amino condensed to the C-terminal 4Me3Hyp,
FT                   giving cyclic peptide"
FT   Modified-site   3
FT                   /label= 4Hyp
FT   Modified-site   4
FT                   /label= OTHER
FT                   /note= "3,4-di-hydroxy-homotyrosine"
FT   Modified-site   5
FT                   /note= "3-hydroxy-Gln"
FT   Modified-site   6
FT                   /label= 3Hyp
FT                   /note= "substituted by 4-methyl, and forms cyclic peptide
FT                   bond with omega-amino of Orn(1)"
XX
PN   BE886576-A.
XX
PD   10-JUN-1981.
XX
PF   13-DEC-1979;   79US-00103015.
XX
PR   13-DEC-1979;   79US-00103015.
PR   13-DEC-1979;   79US-00103131.
PR   13-DEC-1979;   79US-00103147.
PR   13-DEC-1979;   79US-00103148.
PR   13-DEC-1979;   79US-00103149.
PR   25-AUG-1980;   80US-00181030.
PR   25-AUG-1980;   80US-00181040.
PR   25-AUG-1980;   80US-00181435.
PR   25-AUG-1980;   80US-00181436.
PR   25-AUG-1980;   80US-00182248.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Debono M;
XX
DR   WPI; 1981-45988D/26.
XX
PT   Acylated amino poly:cyclic peptide antibiotics - useful for controlling
PT   fungal infections.
XX
PS   Claim 1; Page 100; 106pp; French.
XX
CC   The cyclic peptide is an antifungal agent active both in vitro and in
CC   vivo against e.g. Trichophyton mentagrophytes or especially Candida
CC   albicans. It is prepared by acylation of the corresponding cyclic peptide
CC   in which the Orn has a free alpha-amino group, which in turn is formed by
CC   selective enzymatic deacylation of antibiotic A- 30912 complex or
CC   antibiotic AAS31794-F1. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 6 AA;
```

AAP10539 Length: 6 May 13, 2004 16:42 Type: P Check: 1733 ..

1 XTPXQP

```
!!AA_SEQUENCE 1.0
ID   AAP10606 standard; peptide; 6 AA.
XX
AC   AAP10606;
XX
DT   25-MAR-2003  (revised)
DT   15-JAN-1993  (first entry)
XX
DE   Antifungal cyclic hexapeptide.
XX
KW   Antibiotic; A-30912; S31794-F1; antifungal; Trichophyton; Candida;
KW   disinfectant; antiseptic; cyclic; intermediate.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= Orn
FT                   /note= "(1)4,5-di-hydroxy-substituted; (2)has omega-
FT                   amino condensed to the C-terminal 4Me3Hyp, giving cyclic
FT                   peptide"
FT   Modified-site   3
FT                   /label= 4Hyp
FT   Modified-site   4
FT                   /label= OTHER
FT                   /note= "3,4-di-hydroxy-homotyrosine"
FT   Modified-site   5
FT                   /note= "3-hydroxy-Gln"
FT   Modified-site   6
FT                   /label= 3Hyp
FT                   /note= "substituted by 4-methyl, and forms cyclic peptide
FT                   bond with omega-amino of Orn(1)"
XX
PN   BE886577-A.
XX
PD   10-JUN-1981.
XX
PF   13-DEC-1979;   79US-00103016.
XX
PR   13-DEC-1979;   79US-00103016.
PR   13-DEC-1979;   79US-00103017.
PR   13-DEC-1979;   79US-00103121.
PR   13-DEC-1979;   79US-00103268.
PR   13-DEC-1979;   79US-00103313.
PR   25-AUG-1980;   80US-00181029.
PR   25-AUG-1980;   80US-00181036.
PR   25-AUG-1980;   80US-00181437.
PR   25-AUG-1980;   80US-00181443.
PR   25-AUG-1980;   80US-00181449.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Abbott JB,  Fukuda DS;
XX
DR   WPI; 1981-45989D/26.
XX
PT   Macrocyclic peptide derivs. with prim amino gp. - useful as
PT   intermediates, by acylation, for antifungal agents.
XX
PS   Claim 1; Page 76; 85pp; French.
XX
CC   The cyclic peptide is an intermediate (by acylation of the alpha-amino
CC   group of Orn(1); see e.g.AAP10534 - AAP10539 and AAP10607 - AAP10609) for
CC   antifungal agents active both in vitro and in vivo against e.g.
CC   Trichophyton mentagrophytes or especially Candida albicans. It is
CC   prepared by selective enzymatic deacylation of antibiotic A-30912 complex
CC   or antibiotic AAS31794-F1, using microorganisms of the Actinoplanaceae
CC   family, e.g. Actinoplanes utahensis NRRL 12052, A. missouriensis NRRL
CC   12053 or Streptosporangium roseum var. hollandicus NRRL 12064. (Updated
CC   on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 6 AA;
```

AAP10606 Length: 6 May 13, 2004 16:42 Type: P Check: 1733 ..

1 XTPXQP

```
!!AA_SEQUENCE 1.0
ID   AAP10036 standard; protein; 72 AA.
XX
AC   AAP10036;
XX
DT   25-MAR-2003  (revised)
DT   14-AUG-1992  (first entry)
XX
DE   Sequence encoded by B. licheniformis penP gene.
XX
KW   Gram-positive bacteria; expression vector; heterologous protein.
XX
OS   Bacillus licheniformis.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .34
FT                   /label= signal
XX
PN   EP36259-A.
XX
PD   23-SEP-1981.
XX
PF   02-MAR-1981;   81EP-00300858.
XX
PR   10-MAR-1980;   80US-00128537.
PR   31-DEC-1980;   80US-00221800.
PR   20-APR-1981;   81US-00255804.
PR   26-JAN-1983;   83US-00461248.
XX
PA   (CETU ) CETUS CORP.
PA   (CETU ) CETUS CORP.
XX
PI   Chang S;
XX
DR   WPI; 1981-72134D/40.
DR   N-PSDB; AAN10029.
XX
PT   Prodn. of predetermined protein - by growing bacteria contg. cloning
PT   vectors each having a gene for the protein.
XX
PS   Example; Fig 6; 30pp; English.
XX
CC   The inventors claim a method for the prodn. of a protein, including
CC   mammalian hormones, in Gram-positive bacteria, pref. B subtilis. (Updated
CC   on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct
CC   PA field.)
XX
SQ   Sequence 72 AA;
```

AAP10036 Length: 72 May 13, 2004 16:42 Type: P Check: 667 ..

1 MKLWFSTLKL KKAAAVLLFS CVALAGCANN QTNASQPAEK NEKTEMKDDF

51 AKLEEQFDAK LGIFALDTGT NR

```
!!AA_SEQUENCE 1.0
ID   AAP10172 standard; peptide; 28 AA.
XX
AC   AAP10172;
XX
DT   25-MAR-2003  (revised)
DT   21-DEC-1992  (first entry)
XX
DE   VIP.
XX
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```
KW   Vasoactive intestinal polypeptide;
KW   allergic asthma. chemical mediator isolation-inhibiting action.
XX
OS   Homo sapiens.
XX
PN   JP56128721-A.
XX
PD   08-OCT-1981.
XX
PF   12-MAR-1980;   80JP-00030308.
XX
PR   12-MAR-1980;   80JP-00030308.
XX
PA   (EISA ) EISAI CO LTD.
XX
DR   WPI; 1981-86052D/47.
XX
PT   Antiallergic agent comprises peptide - contg. 28 amino acid units, is
PT   active against e.g. bronchial asthma and hay fever.
XX
PS   Claim 1; Page 1; 3pp; Japanese.
XX
CC   The sequence given can be used as the active component in an antiallergic
CC   agent. Vasoactive intestinal polypeptide (VIP) has chemical mediator
CC   isolation-inhibiting action and is effective for therapy and prevention
CC   of various allergic diseases, such as allergic rhinitus, bronchial
CC   asthma, allergic asthma, hay fever, urticaria, eczema, atopic dermatitis
CC   etc. Since it also has specific bronchial smooth muscle relaxant action,
CC   it is esp. useful for treating and preventing bronchial and allergic
CC   asthma. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-
CC   2003 to correct PA field.)
XX
SQ   Sequence 28 AA;

   AAP10172  Length: 28  May 13, 2004 16:42  Type: P  Check: 1716  ..

       1  HSDAVFTDNY TRLRKQMAVK KYLNSILN

!!AA_SEQUENCE 1.0
ID   AAP10432 standard; peptide; 26 AA.
XX
AC   AAP10432;
XX
DT   25-MAR-2003  (revised)
DT   23-DEC-1992  (first entry)
XX
DE   Tyrosyl C-peptide pro-insulin fragment.
XX
KW   Pancreas beta-cell; diagnosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Region          1. .2
FT                   /note= "added Tyr-Gly"
FT   Peptide         3. .25
FT                   /note= "human proinsulin residues 7-31"
XX
PN   JP56095154-A.
XX
PD   01-AUG-1981.
XX
PF   15-NOV-1979;   79JP-00148350.
XX
PR   15-NOV-1979;   79JP-00148350.
XX
PA   (SHIO ) SHIONOGI & CO LTD.
XX
DR   WPI; 1981-67112D/37.
XX
PT   Tyrosyl C-peptide fragments of pro-insulin - useful in diagnosis of
PT   function of pancreas beta-cell.
XX
PS   Disclosure; Page 3; 8pp; Japanese.
XX
CC   The sequence is that of a tyrosyl C-peptide fragments of human
CC   proinsulin. The peptide is useful in diagnosis of function of the
CC   pancreas beta-cell. It is a shorter peptide than human C-peptide (31
CC   amino acids), the N-terminal tyrosine residue can be labelled with a
CC   radioisotope (radioactive iodine). (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 26 AA;

   AAP10432  Length: 26  May 13, 2004 16:42  Type: P  Check: 6270  ..

       1  YGVGQVELGG GPGAGSLQPL ALEGSL

!!AA_SEQUENCE 1.0
ID   AAP10207 standard; peptide; 39 AA.
XX
AC   AAP10207;
XX
DT   25-MAR-2003  (revised)
DT   19-OCT-1992  (first entry)
XX
DE   Sequence of benzhydrylamine resin peptide A, an intermediate in the
DE   prepn. of adrenocorticotropic hormone (ACTH).
XX
KW   Adrenocorticotropic hormone; peptide amide; intermediate.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= Ser-Bz, D-Ser-Bz, Ala, D-Ala, beta-Ala,
FT                   /note= "Bz=benxyl opt. substd. by 3,4-dimethyl, 4-Me, 4-
FT                   MeO, 4-Cl or 4-NO2, or Ph2CH"
FT   Modified-site   2
FT                   /label= Tyr-Y
FT                   /note= "Y=H, Bz or benzyloxycarbonyl opt. substd. by 2-Cl
FT                   or 2-Br"
FT   Modified-site   3
FT                   /label= Ser-Bz
FT   Modified-site   5
FT                   /label= Glu-OBz
FT   Modified-site   6
FT                   /label= His-W
FT                   /note= "W=H, benzyloxycarbonyl, tosyl, 2,4-dinitrophenyl
FT                   or Bz"
FT   Modified-site   8
FT                   /label= Arg-T
FT                   /note= "T=NO2, tosyl"
FT   Modified-site   11
FT                   /label= Lys-V
FT                   /note= "V=benzyloxycarbonyl opt.substd.by 2-Cl, 2-Br or
FT                   2,4-dichloro"
FT   Modified-site   15
FT                   /label= Lys-V
FT   Modified-site   16
FT                   /label= Lys-V
FT   Modified-site   17
FT                   /label= Arg-T
FT   Modified-site   18
FT                   /label= Arg-T
FT   Modified-site   21
FT                   /label= Lys-V
FT   Modified-site   23
FT                   /label= Tyr-Y
FT   Modified-site   25
FT                   /label= Asp-OBz
FT   Modified-site   28
FT                   /label= Glu-OBz
FT   Modified-site   29
FT                   /label= Asp-OBz
FT   Modified-site   31
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FT                  /label= Ser-OBz
FT   Modified-site  33
FT                  /label= Glu-OBz
FT   Modified-site  38
FT                  /label= Glu-OBz
FT   Modified-site  39
FT                  /label= Phe-NH-CH(C6H5)-R
FT                  /note= "R=polystyrene cross linked with divinylberrzene"
XX
PN   GB1586974-A.
XX
PD   25-MAR-1981.
XX
PF   04-JUL-1977;   77GB-00027835.
XX
PR   04-JUL-1977;   77GB-00027835.
XX
PA   (ARMO ) ARMOUR PHARM CO LTD.
XX
PI   Enkoji T,  Skibbe MO;
XX
DR   WPI; 1981-21978D/13.
XX
PT   Benzhydryl:amine resin peptide complexes - useful in prepn. of more
PT   potent peptide(s) in improved yields.
XX
PS   Claim 5; Page 16; 18pp; English.
XX
CC   The invention is for the prepn. of ACTH using a benzhydrylamine resin.
CC   Amino acids are added one at a time to the insoluble BHA resin until the
CC   total desired peptide sequence has been built up on the resin. The alpha-
CC   amino gps. of the AA derivatives are protected during addition to the
CC   resin by an acid labile protecting gp. which may be tertiary-
CC   butyloxycarbonyl (BOC), amyloxy carbonyl (AMOC) or biphenyloxycarbonyl
CC   (BPOC). The first coupling of an AA moiety will be at posn. No. 39 and
CC   the last will be at posn. No. 1. (Updated on 25-MAR-2003 to correct PD
CC   field.) (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-
CC   2003 to correct PA field.)
XX
SQ   Sequence 39 AA;

  AAP10207  Length: 39  May 13, 2004 16:42  Type: P  Check: 8280  ..

     1  XYSMEHFRWG KPVGKKRRPV KVYPDAGEDQ SAEAFPLEF

!!AA_SEQUENCE 1.0
ID   AAP10144 standard; peptide; 5 AA.
XX
AC   AAP10144;
XX
DT   16-AUG-2002  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of pentapeptide with the pharmacological activity of inducing Th
DE   -1 (T-cell) antigen.
XX
KW   T-lymphocyte differentiation; thymic function; B-precursor cell;
KW   complement receptor B-lymphocyte; immunity system.
XX
OS   Synthetic.
XX
PN   US4258151-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631176.
XX
PR   11-NOV-1975;   75US-00631176.
PR   15-DEC-1977;   77US-00851778.
PR   26-JAN-1979;   79US-00006894.
PR   12-JUN-1979;   79US-00047907.
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27189D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes and complement receptor B lymphocytes.
XX
PS   Example; Col 15; 9pp; English.
XX
CC   AAP10144 is a variation of the active pentapeptide YNIQK with Ala substd.
CC   for one of the residues. YNIQK has a selectivity of biological actions
CC   similar to that of ubiquitin. AAP10144 displays a 12% induction of Th-1
CC   (T-cell) antigen or chicken bone marrow. (Updated on 16-AUG-2002 to add
CC   missing OS field.)
XX
SQ   Sequence 5 AA;

  AAP10144  Length: 5  May 13, 2004 16:42  Type: P  Check: 1139  ..

     1  ANIQK

!!AA_SEQUENCE 1.0
ID   AAP10143 standard; peptide; 17 AA.
XX
AC   AAP10143;
XX
DT   14-OCT-1992  (first entry)
XX
DE   T lymphocytes and complement receptor B lymphocytes differentiation
DE   associated peptide #3.
XX
KW   T-lymphocyte differentiation; thymic function; B-precursor cell;
KW   complement receptor B-lymphocyte; immunity system.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .3
FT                   /label= D, SD, LSD
FT   Region          4. .8
FT                   /note= "active pentapeptide"
FT   Misc-difference 9. .17
FT                   /label= OH; E if R1=LSD, D; ES if R1=LSD, D; EST, ESTL,
FT                   ESTLH, ESTLHL, ESTLHLVLR if R1=LSD
XX
PN   US4258151-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631176.
XX
PR   11-NOV-1975;   75US-00631176.
PR   15-DEC-1977;   77US-00851778.
PR   26-JAN-1979;   79US-00006894.
PR   12-JUN-1979;   79US-00047907.
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27189D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes and complement receptor B lymphocytes.
XX
PS   Example; Col 15; 9pp; English.
XX
CC   All of the variations described in the FT above have the biological
CC   acitvity of the active pentapeptide YNIQK, which displays a selectivity
CC   of actions similar to that of Ubiquitin in inducing the differentiation
CC   of T-lymphocytes and of complement receptors (CR+) B-lymphocytes. The
CC   pentapeptide induced differentiation of Thy-1+ T cells in concentrations
```

```
CC   ranging from 10 ng to 1 ug/ml, and also induced the differentiation of
CC   CR+ B cells in concentrations of 10 ng to 1 ug/ml
XX
SQ   Sequence 17 AA;

   AAP10143  Length: 17  May 13, 2004 16:42  Type: P  Check: 1984  ..

       1  LSDYNIQKES TLHLVLR

!!AA_SEQUENCE 1.0
ID   AAP10142 standard; peptide; 5 AA.
XX
AC   AAP10142;
XX
DT   14-OCT-1992  (first entry)
XX
DE   T lymphocytes and complement receptor B lymphocytes differentiation
DE   associated peptide.
XX
KW   T-lymphocyte differentiation; thymic function; B-precursor cell;
KW   complement receptor B-lymphocyte; immunity system.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= alpha=alpha-R3-X(R1)
FT                   /note= "R3 and R1=protecting gps; X=Tyr, Ala"
FT   Misc-difference 2
FT                   /label= Asn, Ala
FT   Misc-difference 3
FT                   /label= Ile, Ala
FT   Modified-site   4
FT                   /label= Lys(R2)-resin
FT                   /note= "R2=protecting gp; resin=a solid phase polymer
FT                   which acts as a support for the reaction"
XX
PN   US4258151-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631176.
XX
PR   11-NOV-1975;   75US-00631176.
PR   15-DEC-1977;   77US-00851778.
PR   26-JAN-1979;   79US-00006894.
PR   12-JUN-1979;   79US-00047907.
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27189D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes and complement receptor B lymphocytes.
XX
PS   Disclosure; Col 3; 9pp; English.
XX
CC   AAP10142 is an intermediate in the prepn. of one of the polypeptides
CC   described in US4190647 (18338C), which are able to induce differentiation
CC   of T-lymphocytes and of complement inhibitor B-lymphocytes and so are
CC   useful in the thymic function and immunity areas
XX
SQ   Sequence 5 AA;

   AAP10142  Length: 5  May 13, 2004 16:42  Type: P  Check: 1227  ..

       1  XXXQK

!!AA_SEQUENCE 1.0
ID   AAP10145 standard; peptide; 5 AA.
XX
AC   AAP10145;
XX
DT   16-AUG-2002  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of pentapeptide with the pharmacological activity of inducing Th
DE   -1 (T-cell) antigen.
XX
KW   T-lymphocyte differentiation; thymic function; B-precursor cell;
KW   complement receptor B-lymphocyte; immunity system.
XX
OS   Synthetic.
XX
PN   US4258151-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631176.
XX
PR   11-NOV-1975;   75US-00631176.
PR   15-DEC-1977;   77US-00851778.
PR   26-JAN-1979;   79US-00006894.
PR   12-JUN-1979;   79US-00047907.
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27189D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes and complement receptor B lymphocytes.
XX
PS   Example; Col 15; 9pp; English.
XX
CC   AAP10145 is a variation of the active pentapeptide YNIQK with Ala substd.
CC   for one of the residues. YNIQK has a selectivity of biological actions
CC   similar to that of ubiquitin. AAP10145 displays a 15% induction of Th-1
CC   (T-cell) antigen or chicken bone marrow. (Updated on 16-AUG-2002 to add
CC   missing OS field.)
XX
SQ   Sequence 5 AA;

   AAP10145  Length: 5  May 13, 2004 16:42  Type: P  Check: 1137  ..

       1  YAIQK

!!AA_SEQUENCE 1.0
ID   AAP10146 standard; peptide; 5 AA.
XX
AC   AAP10146;
XX
DT   16-AUG-2002  (revised)
DT   14-OCT-1992  (first entry)
XX
DE   Sequence of pentapeptide with the pharmacological activity of inducing Th
DE   -1 (T-cell) antigen.
XX
KW   T-lymphocyte differentiation; thymic function; B-precursor cell;
KW   complement receptor B-lymphocyte; immunity system.
XX
OS   Synthetic.
XX
PN   US4258151-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631176.
XX
PR   11-NOV-1975;   75US-00631176.
PR   15-DEC-1977;   77US-00851778.
PR   26-JAN-1979;   79US-00006894.
PR   12-JUN-1979;   79US-00047907.
```

```
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27189D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes and complement receptor B lymphocytes.
XX
PS   Example; Col 15; 9pp; English.
XX
CC   AAP10146 is a variation of the active pentapeptide YNIQK with Ala substd.
CC   for one of the residues. YNIQK has a selectivity of biological actions
CC   similar to that of ubiquitin. AAP10146 displays a 21% induction of Th-1
CC   (T-cell) antigen or chicken bone marrow. (Updated on 16-AUG-2002 to add
CC   missing OS field.)
XX
SQ   Sequence 5 AA;

   AAP10146  Length: 5  May 13, 2004 16:42  Type: P  Check: 1139  ..

       1  YNAQK

!!AA_SEQUENCE 1.0
ID   AAP10141 standard; peptide; 5 AA.
XX
AC   AAP10141;
XX
DT   14-OCT-1992  (first entry)
XX
DE   T lymphocytes and complement receptor B lymphocytes differentiation
DE   associated peptide.
XX
KW   T-lymphocyte differentiation; thymic function; B-precursor cell;
KW   complement receptor B-lymphocyte; immunity system.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= R3-Tyr(R1)
FT                   /note= "R1= protective gp. on reactive side chain; R2=
FT                   protecting gp. on an amino gp. of Tyr which is removable
FT                   under conditions that do no affect R1 and R2"
FT   Modified-site   5
FT                   /label= Lys(R2)-resin
FT                   /note= "R2= protective gp. on reactive side chain; resin
FT                   is insoluble polymer having a stable physical form and is
FT                   attached to COOH in Lys through a functional gp. of the
FT                   resin by a covalent bond"
XX
PN   US4258151-A.
XX
PD   24-MAR-1981.
XX
PF   11-NOV-1975;   75US-00631176.
XX
PR   11-NOV-1975;   75US-00631176.
PR   15-DEC-1977;   77US-00851778.
PR   26-JAN-1979;   79US-00006894.
PR   12-JUN-1979;   79US-00047907.
XX
PA   (SLOA-) SLOAN-KETTERING INS.
XX
PI   Goldstein G,  Schlesinge DH;
XX
DR   WPI; 1981-27189D/15.
XX
PT   Peptide-resin prods. - for prepn. of polypeptide that induces
PT   differentiation of T lymphocytes and complement receptor B lymphocytes.
XX
PS   Claim 1; Col 16; 9pp; English.
XX
CC   AAP10141 is an intermediate in the prepn. of one of the polypeptides
CC   described in US4190647 (18338C), which are able to induce differentiation
CC   of T-lymphocytes and of complement inhibitor B-lymphocytes and so are
CC   useful in the thymic function and immunity areas
XX
SQ   Sequence 5 AA;

   AAP10141  Length: 5  May 13, 2004 16:42  Type: P  Check: 1163  ..

       1  YNIQK

!!AA_SEQUENCE 1.0
ID   AAP10171 standard; peptide; 27 AA.
XX
AC   AAP10171;
XX
DT   25-MAR-2003  (revised)
DT   15-DEC-1992  (first entry)
XX
DE   Glucagon 1-26 hapten.
XX
KW   Glucagon-like substance; digestive tract glucagon; GLI.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   27
FT                   /note= "Homo-serine"
XX
PN   JP56022958-A.
XX
PD   04-MAR-1981.
XX
PF   01-AUG-1979;   79JP-00098840.
XX
PR   29-MAR-1975;   84JP-00165519.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
DR   WPI; 1981-29855D/17.
XX
PT   Antigen mfr. from Pancreas Glucagon 1-26 peptide-homocerins - and protein
PT   as carrier and a di:aldehyde, used in determn. of blood glucagon content.
XX
PS   Claim 1; Page 1; 9pp; Japanese.
XX
CC   The sequence given is a hapten selected from pancreas-glucagon 1-26
CC   peptide-homoserine. This is used in the production of an antigen which,
CC   when administered to a mammal, produces a glucagon antigen. The glucagon
CC   antigen formed has a high cross reactivity to pancreas glucagon and a
CC   glucagon-like substance (digestive tract glucagon GLI)) similar to the
CC   pancreas glucagon. It shows a fixed cross reactivity with the sequence
CC   given and also a capability of exactly determining the total glucagon
CC   present in the blood, and also the amount of GLI present. (Updated on 25-
CC   MAR-2003 to correct PA field.)
XX
SQ   Sequence 27 AA;

   AAP10171  Length: 27  May 13, 2004 16:42  Type: P  Check: 9883  ..

       1  HSQGTFTSDY SKYLDSRRAQ DFVQWLX

!!AA_SEQUENCE 1.0
ID   AAP10626 standard; peptide; 4 AA.
XX
AC   AAP10626;
XX
DT   11-JAN-1993  (first entry)
XX
DE   Analgesic tetrapeptide hydrazides.
XX
KW   Analgesic; gastrointestinal; diarrhoea; mental disease; prolactin;
```

```
KW   growth hormone releasing; small intestine motor activity inhibiting;
KW   CNS modulating; D-amino acid.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2
FT                   /note= "D-Gln"
FT   Modified-site   4
FT                   /note= "Phe-NH-NH-CO-CH3"
XX
PN   US4277394-A.
XX
PD   07-JUL-1981.
XX
PF   23-APR-1979;    79US-00032503.
XX
PR   23-APR-1979;    79US-00032503.
PR   31-OCT-1979;    79US-00090021.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Fujino M,  Shinagawa S,  Kawai K;
XX
DR   WPI; 1981-54975D/30.
XX
PT   Tetra:peptide hydrazide derivs. - useful as analgesics, antidiarrhoeal(s)
PT   for treating nervous disorders etc.
XX
PS   Example 46; Col 39; 26pp; English.
XX
CC   The peptide is a specific example of generic tetrapeptide hydrazides
CC   claimed in the specification and described in AAP10620. The tetrapeptide
CC   hydrazides have analgesic activity superior to that of beta-endorphine,
CC   coupled with low toxicity. They are useful for treating pain, such as
CC   that associated with advanced-stage cancer. They are also useful for
CC   treatment of gastrointestinal disorders (such as diarrhoea) and mental
CC   disease. They also have activities of prolactin or growth hormone
CC   releasing activity, inhibitory effect on motor activity of small
CC   intestine and modulating of central nervous system
XX
SQ   Sequence 4 AA;

     AAP10626  Length: 4  May 13, 2004 16:42  Type: P  Check: 744  ..

        1  YQGF

!!AA_SEQUENCE 1.0
ID   AAP10536 standard; peptide; 6 AA.
XX
AC   AAP10536;
XX
DT   25-MAR-2003  (revised)
DT   24-DEC-1992  (first entry)
XX
DE   Antifungal cyclic hexapeptide.
XX
KW   Antibiotic; A-30912; S31794-F1; antifungal; Trichophyton; Candida;
KW   disinfectant; antiseptic; cyclic.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= Orn
FT                   /note= "(1)N-alpha-acylated by alkaryl-carbonyl or
FT                   (alk)aryl-alk(en)yl-carbonyl; (2)4,5-di-hydroxy-
FT                   substituted; (3)has omega-amino condensed to the C-
FT                   terminal 4Me3Hyp, giving cyclic peptide"
FT   Modified-site   3
FT                   /label= 4Hyp
FT   Modified-site   4
FT                   /label= OTHER
FT                   /note= "3,4-di-hydroxy-homotyrosine"
FT   Modified-site   5
FT                   /note= "3-hydroxy-Gln"
FT   Modified-site   6
FT                   /label= 3Hyp
FT                   /note= "substituted by 4-methyl, and forms cyclic peptide
FT                   bond with omega-amino of Orn(1)"
XX
PN   BE886575-A.
XX
PD   10-JUN-1981.
XX
PF   13-DEC-1979;    79US-00103012.
XX
PR   13-DEC-1979;    79US-00103012.
PR   13-DEC-1979;    79US-00103018.
PR   13-DEC-1979;    79US-00103019.
PR   13-DEC-1979;    79US-00103146.
PR   13-DEC-1979;    79US-00103150.
PR   25-AUG-1980;    80US-00181034.
PR   25-AUG-1980;    80US-00181035.
PR   25-AUG-1980;    80US-00181037.
PR   25-AUG-1980;    80US-00181434.
PR   25-AUG-1980;    80US-00181442.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Debono M;
XX
DR   WPI; 1981-45987D/26.
XX
PT   Acylamino substd. cyclic peptide antifungal agents - useful orally or
PT   topically esp. against Candida albicans.
XX
PS   Claim 1; Page 105; 112pp; French.
XX
CC   The cyclic peptide is an antifungal agent active both in vitro and in
CC   vivo against e.g. Trichophyton mentagrophytes or especially Candida
CC   albicans. It is prepared by acylation of the corresponding cyclic peptide
CC   in which the Orn has a free alpha-amino group, which in turn is formed by
CC   selective enzymatic deacylation of antiobic A- 30912 complex or
CC   antibiotic AAS31794-F1. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 6 AA;

     AAP10536  Length: 6  May 13, 2004 16:42  Type: P  Check: 1733  ..

        1  XTPXQP

!!AA_SEQUENCE 1.0
ID   AAP10043 standard; protein; 217 AA.
XX
AC   AAP10043;
XX
DT   25-MAR-2003  (revised)
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of human fibroblast interferon which is derived from a
DE   combination of the data from at least two of the plasmids pHFIF1-13.
XX
KW   Viral infection; therapy; cancer; tumour.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         21. .1
FT                   /label= signal
FT                   /note= "the mature peptide and the combined signal and
FT                   mature peptide are claimed"
XX
PN   EP41313-A.
XX
PD   09-DEC-1981.
```

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XX
PF   03-APR-1980;   80GB-00011306.
XX
PR   03-APR-1980;   80GB-00011306.
PR   06-JUN-1980;   80GB-00018701.
PR   08-SEP-1980;   80GB-00028983.
XX
PA   (BIOJ ) BIOGEN NV.
PA   (BIOJ ) BIOGEN NV.
XX
PI   Fiers WC;
XX
DR   WPI; 1981-93390D/51.
DR   N-PSDB; AAN10038.
XX
PT   DNA sequences, recombinant DNA molecules transformed hosts etc. - for
PT   prodn. of antiviral and anticancer polypeptide(s) (NO 26.10.81).
XX
PS   Claim 19; Fig 4; 118pp; English.
XX
CC   The inventors claim a DNa sequence consisting of the DNA inserts of G-
CC   pBR322(Pst)/HFIF1, /HFIF3, /HFIF6 or /HFIF7 and DNA sequences which
CC   hybridise any of these 4 inserts. A polypeptide or its fragments and
CC   derivs. showing an immunological or biological activity of human
CC   fibroblast interferon produced by the transformed host is also claimed.
CC   The polypeptide is useful for treating viral infections, cancers or
CC   tumours in humans, or for treating bovine viral infections. (Updated on
CC   25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 217 AA;

  AAP10043  Length: 217  May 13, 2004 16:42  Type: P  Check: 3670  ..

      1  MTNKCLLQIA LLLCFSTTAL SMSYNLLGFL QRSSNFQCQK LLWQLNGRLE

     51  YCLKDRMNFD IPEEIKQLQQ FQKEDAALTI YEMLQNIFAI FRQDSSSTGW

    101  NETIVENLLA NVYHQINHLK TVLEEKLEKE DFTIVENLLA NVYHQINHLK

    151  TVLEEKLEKE DFTRGKLMSS LHLKRYYGRI LHYLKAKEYS HCAWTIVRVE

    201  ILRNFYFINR LTGYLRN

!!AA_SEQUENCE 1.0
ID   AAP10427 standard; peptide; 35 AA.
XX
AC   AAP10427;
XX
DT   28-OCT-2003  (revised)
DT   17-DEC-1992  (first entry)
XX
DE   CB6 type 24 streptococcal M protein peptide fragment.
XX
KW   Cyanogen bromide; vaccine; rheumatic fever; immunogenic;
KW   opsonic antibody.
XX
OS   Streptococcus pyogenes; type 24 vaccine strain.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   35
FT                   /label= OTHER
FT                   /note= "homoserine"
XX
PN   US4284537-A.
XX
PD   18-AUG-1981.
XX
PF   03-JUL-1980;   80US-00165619.
XX
PR   03-JUL-1980;   80US-00165619.
XX
PA   (USSH ) US SEC DEPT HEALTH.
XX
PI   Beachey EH;
XX
DR   WPI; 1981-65903D/36.
XX
PT   Conjugates of streptococcal M protein fragments with poly:lysine - are
PT   highly immunogenic and give type specific antibodies against group A
PT   streptococci.
XX
PS   Disclosure; Page 2; 4pp; English.
XX
CC   The sequence is that of a cyanogen bromide fragment CB6 of type 24
CC   streptococcal M protein purified from a peptic extract of the organism.
CC   The peptide is not immunogenic alone but when covalently conjugated with
CC   a polylysine carrier, it becomes highly immunogenic, producing type
CC   specific opsonic and bactericidal antibody responses against group A
CC   streptococci. The conjugate may be used as a vaccine for preventing
CC   rheumatic fever triggered by group A streptococcal infections. See also
CC   AAP10428. (Updated on 28-OCT-2003 to standardise OS field)
XX
SQ   Sequence 35 AA;

  AAP10427  Length: 35  May 13, 2004 16:42  Type: P  Check: 5690  ..

      1  NFSTADSAKI KTLEAEKEEL EARQAELEKA LEGAX

!!AA_SEQUENCE 1.0
ID   AAP20060 standard; protein; 47 AA.
XX
AC   AAP20060;
XX
DT   25-MAR-2003  (revised)
DT   21-SEP-1992  (first entry)
XX
DE   Amino acds 223-269 of HLA-B7 antigen.
XX
KW   HLA-B7.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 21
FT                   /label= Gln in natural HLA-B7
FT                   /note= "Glu is a hydrolysis artifact"
XX
PN   WO8202060-A.
XX
PD   24-JUN-1982.
XX
PF   18-DEC-1980;   80US-00217643.
XX
PR   18-DEC-1980;   80US-00217643.
PR   13-JUL-1983;   83US-00513524.
PR   31-MAR-1986;   86US-00846481.
XX
PA   (UYYA ) UNIV YALE.
XX
PI   Weissman SM,  Pereira D,  Sood A;
XX
DR   WPI; 1982-54906E/26.
DR   N-PSDB; AAN20069.
XX
PT   Isolating and identifying recombinant clones - contg. DNA derived from
PT   one component of a messenger RNA mixt.
XX
PS   Claim 17; Page 34; 40pp; English.
XX
CC   The sequence represents amino acids 223-269 of HLA-B7 antigen. (Updated
CC   on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct
CC   PA field.)
XX
SQ   Sequence 47 AA;
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AAP20060 Length: 47 May 13, 2004 16:42 Type: P Check: 6914 ..

1 DQTQDTELVE TRPAGDRTFQ KWAAVVVPSG EEQRYTCHVQ HEGLPKP

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!!AA_SEQUENCE 1.0
ID   AAP20027 standard; protein; 217 AA.
XX
AC   AAP20027;
XX
DT   25-MAR-2003  (revised)
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of bovine pre-growth hormone.
XX
KW   Growth hormone; growth promoter; weight gain.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Protein         1. .26
FT                   /label= BPGH
FT   Protein         27. .117
FT                   /label= BGH
XX
PN   EP47600-A.
XX
PD   17-MAR-1982.
XX
PF   26-AUG-1980;   80US-00181348.
XX
PR   26-AUG-1980;   80US-00181348.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Miller WL,  Martial JA,  Baxter JD;
XX
DR   WPI; 1982-22330E/12.
DR   N-PSDB; AAN20032.
XX
PT   DNA transfer vectors coding for bovine growth hormone etc. - useful for
PT   transforming microorganisms for prodn. of fusion proteins.
XX
PS   Disclosure; Fig 1; 49pp; English.
XX
CC   The inventors claim DNA transfer vectors comprising DNA sequences coding
CC   for bovine pre-growth hormone (BPGH) or bovine growth hormone (BGH) and
CC   microorganisms transformed by these DNA transfer vectors. A fusion
CC   protein comprising the AA sequence of BPGH or BGH as its C-terminal end
CC   and a portion of a procaryotic protein as its N-terminal end is also
CC   claimed. The DNA vector for BPGH is pref. plasmid pBR348. The vectors are
CC   suitably used to transform E. coli, esp. strains Chi-1776, HB101 or RRI.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 217 AA;
```

AAP20027 Length: 217 May 13, 2004 16:42 Type: P Check: 6196 ..

```
      1  MMAAGPRTSL LLAFALLCLP WTQVVGAFPA MSLSGLFANA VLRAQHLHQL

     51  AADTFKEFER TYIPEGQRYS IQNTQVAFCF SETIPAPTGK NEAQQKSDLE

    101  LLRISLLLIQ SWLGPLQFLS RVFTNSLVFG TSDRVYEKLK DLEEGILALM

    151  RELEDGTPRA GQILKQTYDK FDTNMRSDDA LLKNYGLLSC FRKDLHKTET

    201  YLRVMKCRRS GEASCAF
```

```
!!AA_SEQUENCE 1.0
ID   AAP20263 standard; protein; 30 AA.
XX
AC   AAP20263;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Insulin chain B analogue.
XX
KW   Diabetes mellitus; resitance; protease.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 30
FT                   /note= "amino acid contg. at least 5C"
XX
PN   JP57067548-A.
XX
PD   24-APR-1982.
XX
PF   14-OCT-1980;   80JP-00144032.
XX
PR   14-OCT-1980;   80JP-00144032.
XX
PA   (SHIO ) SHIONOGI & CO LTD.
XX
DR   WPI; 1982-44832E/22.
XX
PT   Insulin analogues esp. for insulin resistant diabetes patients - prepd.
PT   by condensing at least 5C amino acid (deriv.) with des-B30 insulin by
PT   action of protease.
XX
PS   Claim 1; Page 1; 6pp; Japanese.
XX
CC   Insulin analogues may have a B chain in which the amino acid at the B30
CC   position contains 5C or more. They are prepd. by condensing an amino acid
CC   contg. at least 5C or its deriv. (which may be protected) with des-B30-
CC   insulin by the action of a protease which hydrolyses peptides at the
CC   carboxy side of basic amino acid residues, and if required deprotecting.
CC   The insulin analogues are used in the treatment of diabetes mellitus,
CC   partic. insulin resistant patients (resisting due to generation of bovine
CC   or swine insulin antibody). They are also useful in various tests of
CC   insulin. They may be formulated together with ZnCl2 (forming Zn
CC   complexes), buffer (sodium biphosphate, NaOAc), isotonic agents (NaCl) or
CC   antiseptics (cresol, phenol, p-hydroxybenzoic acid alkyl estes) into
CC   injections and given at a dose of about 1-100 units/adult/day. (Updated
CC   on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct
CC   PA field.)
XX
SQ   Sequence 30 AA;
```

AAP20263 Length: 30 May 13, 2004 16:42 Type: P Check: 5845 ..

1 FVNQHLCGSH LVEALYLVCG ERGFFYTPKX

```
!!AA_SEQUENCE 1.0
ID   AAP20251 standard; peptide; 46 AA.
XX
AC   AAP20251;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   HCG analogue.
XX
KW   Human chorionic gonadotrophin; sexual hormone; ectopic pregnacy;
KW   choriocarcinoma; antibody.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= CYS,THR
FT   Modified-site   11
FT                   /label= CYS,OTHER
FT                   /note= "S-acetamidomethyl-Cys"
XX
```

PN JP57081447-A.
XX
PD 21-MAY-1982.
XX
PF 11-NOV-1980; 80JP-00158567.
XX
PR 11-NOV-1980; 80JP-00158567.
XX
PA (TOXN) TOYO JOZO KK.
XX
DR WPI; 1982-53428E/26.
XX
PT Human chorionic gonadotropin (HCG)c - is sugar protein and sex hormone
PT useful in diagnosis of pregnancy etc.
XX
PS Claim 1; Page 1; 35pp; Japanese.
XX
CC The sequence given is an analogue of a portion of the human chorionic
CC gonadotrophin (HCG) protein. HCG is a sugar protein and sexual hormone
CC which plays an important part in support of pregnancy. Determination or
CC detection of HCG is useful for early diagnosis of pregnancy, ectopic
CC pregnancy and choriocarcinoma etc. Antibodies raised against this
CC analogue have cross immunoactivity with HCG. This peptide is useful for
CC raising antibodies against HCG and in the preparation of antibody for HCG
CC determination system and as labelling reagent. (Updated on 25-MAR-2003 to
CC correct PR field.)
XX
SQ Sequence 46 AA;

AAP20251 Length: 46 May 13, 2004 16:42 Type: P Check: 4418 ..

1 XGGPKDHPLT CDDPRFQDSS SSKAPPPSLP SPSRLPGPSD TPILPQ

!!AA_SEQUENCE 1.0
ID AAP20329 standard; peptide; 24 AA.
XX
AC AAP20329;
XX
DT 25-MAR-2003 (revised)
DT 16-AUG-2002 (revised)
DT 19-AUG-1992 (first entry)
XX
DE Sequence of fragment of glucagon.
XX
KW Spasmolytics; gastric antisecretory; glucagon fragment.
XX
OS Mammalia.
OS Synthetic.
XX
PN EP44168-A.
XX
PD 20-JAN-1982.
XX
PF 30-JUN-1981; 81EP-00302978.
XX
PR 01-JUL-1980; 80DK-00002831.
PR 30-JUN-1981; 81DK-00002885.
XX
PA (NOVO) NOVO IND AS.
XX
PI Gronvald FC, Frandsen EK, Moody AJ, Markussen J;
XX
DR WPI; 1982-06250E/04.
XX
PT Glucagon fragment polypeptide(s) - used e.g. as spasmolytics, gastric
PT antisecretories and in diagnostics.
XX
PS Claim 10; Page 15; 19pp; English.
XX
CC The glucagon fragments of the invention are useful as spasmolytics or
CC gastric antisecretories, esp. for treatment of G.I. tract spasm, biliary
CC and urinary tract calculi and/or gastro-duodenal ulcers. Unlike glucagon,
CC they have at most minor metabolic effects. Doses are e.g. 1-1000, pref.
CC 10-100 mcg/kg i.v., i.m. or s.c, or 0.1-100, pref. 1-10 mcg/kg
CC nasally.For diagnostic purposes they may be used in radiology, endoscopy
CC and hysterosalphingographia. (Updated on 16-AUG-2002 to add missing OS
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 24 AA;

AAP20329 Length: 24 May 13, 2004 16:42 Type: P Check: 3398 ..

1 HSQGTFTSDY SKYLDSRRAQ DMNT

!!AA_SEQUENCE 1.0
ID AAP20310 standard; peptide; 7 AA.
XX
AC AAP20310;
XX
DT 25-MAR-2003 (revised)
DT 30-NOV-1992 (first entry)
XX
DE Tyr8-SP5-11.
XX
KW SP5-11; neurotransmitter; sialosis; depolarisation; neuropathy;
KW intestine contraction.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "pyroglutamic acid"
XX
PN JP57018654-A.
XX
PD 30-JAN-1982.
XX
PF 09-JUL-1980; 80JP-00093503.
XX
PR 09-JUL-1980; 80JP-00093503.
XX
PA (DAII-) DAI-ICHI RADIOISOTO.
XX
DR WPI; 1982-18683E/10.
XX
PT Radioactive iodine labelled hepta:peptide - used as tracer for
PT radioimmunoassay of specified peptide.
XX
PS Claim 1; Page 1; 5pp; Japanese.
XX
CC The sequence given is a heptapeptide which is labelled with radioactive
CC iodine and which is employed within the scope of the invention as a
CC tracer to determine a peptide of formula pGlu-Gln-Phe- Phe-Gly-Leu-Met-
CC NH2 (SP5-11) by radioimmunoassay. SP5-11 is a neurotransmitter which
CC exhibits sialosis action, depolarisation action and intestine contracting
CC action. Tyr8-SP5-11 can be used to determine the presence of SP5-11 in
CC the body. This is useful in the diagnosis of various types of neuropathy
CC or digestive tract diseases. (Updated on 25-MAR-2003 to correct PR
CC field.)
XX
SQ Sequence 7 AA;

AAP20310 Length: 7 May 13, 2004 16:42 Type: P Check: 2147 ..

1 EQFYGLM

!!AA_SEQUENCE 1.0
ID AAP20021 standard; protein; 67 AA.
XX
AC AAP20021;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 20-AUG-1992 (first entry)
XX
DE Sequence of a foot and mouth disease virus capsid protein encoded by a

```
DE   region of recombinant plasmid pFA61/t76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20020.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 7; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 67 AA;

   AAP20021  Length: 67  May 13, 2004 16:42  Type: P  Check: 8236  ..

     1  DSLSSLFHVP APAFSFGAPV LLAGLVKVAS SFFRSTPEDL ERAEKQLKAR

    51  DINDILPFSR TASGWSN

!!AA_SEQUENCE 1.0
ID   AAP20022 standard; protein; 67 AA.
XX
AC   AAP20022;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   20-AUG-1992  (first entry)
XX
DE   Sequence of a foot and mouth disease virus capsid protein encoded by a
DE   region of recombinant plasmid pFA61/t76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20020.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 7; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 67 AA;

   AAP20022  Length: 67  May 13, 2004 16:42  Type: P  Check: 4949  ..

     1  TRSPVSFTCR PPPSVSELRF CWPGWSRSPR VSSGPHPKTL REQRNSSKHV

    51  TLTTSCHSQE RRVAGQT

!!AA_SEQUENCE 1.0
ID   AAP20016 standard; protein; 934 AA.
XX
AC   AAP20016;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   20-AUG-1992  (first entry)
XX
DE   Sequence of p20, VP4, VP2, VP3, VP1 and p52 encoded by recombinant
DE   plasmid pFA A61/t 76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease; ss.
XX
OS   Foot-and-mouth disease virus.
XX
FH   Key             Location/Qualifiers
FT   Protein         1. .75
FT                   /label= p20
FT   Protein         76. .172
FT                   /label= VP4
FT   Protein         173. .390
FT                   /label= VP2
FT   Protein         391. .611
FT                   /label= VP3
FT   Protein         612. .823
FT                   /label= VP1
```

```
FT   Protein         824
FT                   /label= p52
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20016.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 13; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 934 AA;

  AAP20016  Length: 934  May 13, 2004 16:42  Type: P  Check: 1455  ..

       1  IGTASRPSEV CMVDGTDMCL ADFHAGIFMK GQEHAVFACV TSDGWYAIDD

      51  EDFYPWTPDP SDVLVFVPYD QEPLNGDWKT QVQKKLKGAG QSSPATGSQN

     101  QSGNTGSIIN NYYMQQYQNS MSTQLGDNTI SGGSNEGSTD TTSTHTTNTQ

     151  NNDWFSKLAS SAFTGLFGAL LADKKTEETT LLEDRILTTR NGHTTSTTQS

     201  SVGVTYGYST EEDHVAGPNT SGLETRVVQA ERFFKKFLFD WTTDKPFGYL

     251  TKLELPTDHH GVFGHLVDSY AYMRNGWDVE VCAVGNQFNG GCLLVAMVPE

     301  WKAFDTREKY QLTLFPHQFI SPRTNMTAHI TVPYLGVNRY DQYKKHKPWT

     351  LVVMVLSPLT VSNTAAPQIK VYANIAPTYV HVAGELPSKE GIFPVACADG

     401  YGGLVTTDPK TADPVYGKVY NPPKTNYPGR FTNLLDVAEA CPTFLRFDDG

     451  KPYVVTRADD TRLLAKFDVS LAAKHMSNTY LSGIAQYYTQ YSGTINLHFM

     501  FTGSTDSKAR YMVAYIPLGV ETPPDTPEEA AHCIHTEWDT GLNSKFTFSI

     551  PYVSAADYAY TASDTAETTN VQGWVCVYQI THGKAENDTL LVSASAGKDF

     601  ELRLPIDPRT QTTTTGESAD PVTTTVKNYG GDTQVQRRHH TDVGFIMDRF

     651  VKINSLSPTH VIDLMQTHKH GIVGALLRAA TYYFSDLEIV VRHDGNLTWV

     701  PNGAPETTLS NTSNPTAYNK APFTRLALPY TAPHRVLATV YDGTNKYSAS

     751  DSRSGDLGSI AARVATQLPA SFNYGAIQAQ AIHELLVRMK RAELYCPKPL

     801  LAIKVTSQDR YKQKIIAPAK QLLNFDLLKL AGDVESNLGP FFFADVRSNF

     851  SKLVDTINQM QEDMSTKHGP DFNRLVSAFE ELATGVKAIR TGLDEAKPWY

     901  KLIKLLSRLS CMAAVAARSK DPVLVAIMLA DTGL

!!AA_SEQUENCE 1.0
ID   AAP20019 standard; protein; 78 AA.
XX
AC   AAP20019;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   20-AUG-1992  (first entry)
XX
DE   Sequence of a foot and mouth disease virus capsid protein encoded by a
DE   region of recombinant plasmid pFA61/t76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20019.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 6; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 78 AA;

  AAP20019  Length: 78  May 13, 2004 16:42  Type: P  Check: 2506  ..

       1  GRFTNLLDVA EACPTFLRFD DGKPYVVTRA DDTRLLAKFD VSLAAKHMFN
```

```
     51  TYLSGIAQYY TQYSGTINLH FVFTGSTD

!!AA_SEQUENCE 1.0
ID   AAP20020 standard; protein; 78 AA.
XX
AC   AAP20020;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   20-AUG-1992  (first entry)
XX
DE   Sequence of a foot and mouth disease virus capsid protein encoded by a
DE   region of recombinant plasmid pFA61/t76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20019.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 6; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 78 AA;

   AAP20020  Length: 78  May 13, 2004 16:42  Type: P  Check: 9166  ..

      1  GALQTYWTWP KHVPPFFVST MGNRTSLRGQ TTPVFWPSLM SPLPQNTCST

     51  HTYQGLHSTT HSTLVLSTCT SCSQAPLT

!!AA_SEQUENCE 1.0
ID   AAP20023 standard; protein; 91 AA.
XX
AC   AAP20023;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   20-AUG-1992  (first entry)
XX
DE   Sequence of foot and mouth disease virus capsid proteins VP3 and VP1
DE   encoded by a region of recombinant plasmid pFA61/t76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease.
XX
OS   Foot-and-mouth disease virus.
XX
FH   Key             Location/Qualifiers
FT   Protein         1. .7
FT                   /label= VP3
FT   Protein         8. .91
FT                   /label= VP1
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20021.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 9; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 91 AA;

   AAP20023  Length: 91  May 13, 2004 16:42  Type: P  Check: 4149  ..

      1  SNCPRTQTTT TGESADPVTT TVENYGGDTQ VQRRHHTDVG FIMDRFVKIN

     51  SLSPTHVIDL MQTHKHGIVG ALLRAATYYF SDLEIVVRHD G

!!AA_SEQUENCE 1.0
ID   AAP20018 standard; protein; 105 AA.
XX
AC   AAP20018;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   20-AUG-1992  (first entry)
XX
DE   Sequence of a foot and mouth disease virus capsid protein encoded by a
```

```
DE   region of recombinant plasmid pFA61/t76.
XX
KW   Vaccine; antibody; capsid protein; immunogen; antigen;
KW   foot and mouth disease.
XX
OS   Foot-and-mouth disease virus.
XX
PN   EP48455-A.
XX
PD   31-MAR-1982.
XX
PF   18-SEP-1980;   80GB-00030208.
XX
PR   18-SEP-1980;   80GB-00030208.
PR   22-OCT-1980;   80GB-00034130.
PR   27-NOV-1980;   80GB-00038147.
PR   08-APR-1981;   81GB-00011064.
PR   18-AUG-1981;   81GB-00025150.
PR   17-SEP-1981;   81GB-00028106.
XX
PA   (WELL ) WELLCOME FOUND LTD.
PA   (NATR ) NAT RES DEV CORP.
PA   (BOOT/) BOOTHROYD J C.
XX
PI   Highfield PE,  Winther M,  Rowlands DJ,  Brown F,  Harris TJR;
PI   Lowe PA,  Boothroyd JC,  Cross GAM;
XX
DR   WPI; 1982-26702E/14.
DR   N-PSDB; AAN20018.
XX
PT   DNA corresp. to (part of) foot and mouth disease virus RNA - useful in
PT   prepn. of vaccines for producing antibodies against the virus.
XX
PS   Example; Fig 5; 57pp; English.
XX
CC   The inventors claim a DNA molecule comprising a nucleotide sequence
CC   corresp. to all or a portion of foot-and-mouth disease virus RNA (FMDV).
CC   The DNA molecule is esp. for a precursor of FMDV capsid protein. It esp.
CC   codes for FMDV protein p88 and VP1-VP4. It may code for VP4, VP2, VP3 and
CC   VP1 contiguously. The inventors also claim a vaccine for stiumlating
CC   prodn. of antibodies against FMDV in a mammal which comprises at least
CC   one of the above recombinant proteins produced by a host cell transformed
CC   with the DNA. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to standardise
CC   OS field)
XX
SQ   Sequence 105 AA;

  AAP20018  Length: 105  May 13, 2004 16:42  Type: P  Check: 9820  ..

       1  SYAYMRNGWD VEVSAVGNQF NGGCLLVAMV PDGKAFDTRE KYQLTLFPHQ

      51  FISPRTNMTA HITVPYLGVN RYDQYKKHKP WTLVVMVLSP LTVSNTAAPQ

     101  IKVYA

!!AA_SEQUENCE 1.0
ID   AAP20010 standard; protein; 188 AA.
XX
AC   AAP20010;
XX
DT   25-MAR-2003  (revised)
DT   18-DEC-1992  (first entry)
XX
DE   Hybrid human leukocyte interferon LeIFD.
XX
KW   Leukocyte; interferon; antitumor; immunostimulant; virucide; plasmid;
KW   pLe-IFD.
XX
OS   Homo sapiens.
XX
PN   EP51873-A.
XX
PD   19-MAY-1982.
XX
PF   09-NOV-1981;   81EP-00109579.
XX
PR   10-NOV-1980;   80US-00205379.
PR   10-NOV-1980;   80US-00205579.
PR   23-FEB-1981;   81US-00237388.
PR   25-SEP-1981;   81US-00305657.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN;
XX
DR   WPI; 1982-41788E/21.
DR   N-PSDB; AAN20008.
XX
PT   Hybrid human leukocyte interferon(s) - useful for treating viral and
PT   neoplastic diseases.
XX
PS   Disclosure; Fig 1; 54pp; English.
XX
CC   This protein may be expressed in Escherichia coli using expression vector
CC   plasmid pLe-IFD. See also AAN20005-7, AAN20009-12, AAN20026-30 and
CC   AAP20007-9 and AAP20011-14. (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 188 AA;

  AAP20010  Length: 188  May 13, 2004 16:42  Type: P  Check: 1058  ..

       1  ASPFALLMVL VVLSCKSSCS LGCDLPETHS LDNRRTLMLL AQMSRISPSS

      51  CLMDRHDFAF PQEEFDGNQF QKAPAISVLH ELIQQIFNLF TTKDSSAPWD

     101  EDLLDKFCTE LYQQLNDLEA CVMQEERVGE TPLMNVDSIL AVKKYFRRIT

     151  LYLTEKKYSP CAWEVVRAEI MRSLSLSTNL QERLRRKE

!!AA_SEQUENCE 1.0
ID   AAP20012 standard; protein; 292 AA.
XX
AC   AAP20012;
XX
DT   25-MAR-2003  (revised)
DT   18-DEC-1992  (first entry)
XX
DE   Hybrid human leukocyte interferon LeIFF.
XX
KW   Leukocyte; interferon; antitumor; immunostimulant; virucide; plasmid;
KW   pLe-IFF.
XX
OS   Homo sapiens.
XX
PN   EP51873-A.
XX
PD   19-MAY-1982.
XX
PF   09-NOV-1981;   81EP-00109579.
XX
PR   10-NOV-1980;   80US-00205379.
PR   10-NOV-1980;   80US-00205579.
PR   23-FEB-1981;   81US-00237388.
PR   25-SEP-1981;   81US-00305657.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN;
XX
DR   WPI; 1982-41788E/21.
DR   N-PSDB; AAN20010.
XX
PT   Hybrid human leukocyte interferon(s) - useful for treating viral and
PT   neoplastic diseases.
```

```
XX
PS   Disclosure; Fig 1; 54pp; English.
XX
CC   This protein may be expressed in Escherichia coli using expression vector
CC   plasmid pLe-IFF. See also AAN20005-9, AAN20011-12, AAN20026-30 and
CC   AAP20007-11 and AAP20013-14. (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 292 AA;

  AAP20012  Length: 292  May 13, 2004 16:42  Type: P  Check: 7854  ..

       1  LPLGCDLPQA HSVRNRRAFI LLTQMRRISP FSYLKDRHDF DFPSSRVSWQ

      51  PLPEGSSYLP FPXDDAAELQ PLQHKGLIXY LGXDPFRQIL HXTLPAAEXP

     101  GSLCDVEGWS GTDSPEECGL HPGCEKILSK NHSLSDKEEV XPLFLAGCQS

     151  RNHEILLFMN ELAGKIKEEG MKTGSTCKXE TFPXLIHHLT HSXILPFLIF

     201  AISMTXVESK FXNVFRNVKQ HHVQLYRHXF LTDHHADGSV YLFVXIIIXL

     251  FIIFKIFFSC IMYFYFVVNI TTHVLYIXSI YYFAFFIKFL LS

!!AA_SEQUENCE 1.0
ID   AAP20013 standard; protein; 188 AA.
XX
AC   AAP20013;
XX
DT   25-MAR-2003  (revised)
DT   18-DEC-1992  (first entry)
XX
DE   Hybrid human leukocyte interferon LeIFH.
XX
KW   Leukocyte; interferon; antitumor; immunostimulant; virucide; plasmid;
KW   pLe-IFH.
XX
OS   Homo sapiens.
XX
PN   EP51873-A.
XX
PD   19-MAY-1982.
XX
PF   09-NOV-1981;   81EP-00109579.
XX
PR   10-NOV-1980;   80US-00205379.
PR   10-NOV-1980;   80US-00205579.
PR   23-FEB-1981;   81US-00237388.
PR   25-SEP-1981;   81US-00305657.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN;
XX
DR   WPI; 1982-41788E/21.
DR   N-PSDB; AAP20012.
XX
PT   Hybrid human leukocyte interferon(s) - useful for treating viral and
PT   neoplastic diseases.
XX
PS   Disclosure; Fig 1; 54pp; English.
XX
CC   This protein may be expressed in Escherichia coli using expression vector
CC   plasmid pLe-IFH. See also AAN20005-11, AAN20026-30 and AAP20007-12 and
CC   AAP20013. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-
CC   MAR-2003 to correct PA field.)
XX
SQ   Sequence 188 AA;

  AAP20013  Length: 188  May 13, 2004 16:42  Type: P  Check: 1618  ..

       1  ALPFALMMAL VVLSCKSSCS LGCNLSQTHS LNNRRTLMLM AQMRRISPFS

      51  CLKDRHDFEF PQEEFDRNQF QKAQAISVLH EMMQQTFNLF STKNSSAAWD

     101  ETLLEKFYIE LFQQINHLEA CVIQEVGVEE TPLINEDSIL AVKKYFQRIT

     151  LYLMENKYSP CAWQVVRAEI MRSFSFSTNL QKRLRRKD

!!AA_SEQUENCE 1.0
ID   AAP20007 standard; protein; 187 AA.
XX
AC   AAP20007;
XX
DT   25-MAR-2003  (revised)
DT   18-DEC-1992  (first entry)
XX
DE   Hybrid human leukocyte interferon LeIFA.
XX
KW   Leukocyte; interferon; antitumor; immunostimulant; virucide; plasmid;
KW   pLe-IFA.
XX
OS   Homo sapiens.
XX
PN   EP51873-A.
XX
PD   19-MAY-1982.
XX
PF   09-NOV-1981;   81EP-00109579.
XX
PR   10-NOV-1980;   80US-00205379.
PR   10-NOV-1980;   80US-00205579.
PR   23-FEB-1981;   81US-00237388.
PR   25-SEP-1981;   81US-00305657.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN;
XX
DR   WPI; 1982-41788E/21.
DR   N-PSDB; AAN20005.
XX
PT   Hybrid human leukocyte interferon(s) - useful for treating viral and
PT   neoplastic diseases.
XX
PS   Disclosure; Fig 1; 54pp; English.
XX
CC   This protein is expressed in Escherichia coli using the replicable
CC   expression vector plasmid pLe-IFA. See also AAN20006-12, AAN20026-30 and
CC   AAP20008-14. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25
CC   -MAR-2003 to correct PA field.)
XX
SQ   Sequence 187 AA;

  AAP20007  Length: 187  May 13, 2004 16:42  Type: P  Check: 231  ..

       1  ALTFALLVAL LVLSCKSSCS VGCDLPQTHS LGSRRTLMLL AQMRKISLFS

      51  CLKDRHDFGF PQEEFGNQFQ KAETIPVLHE MIQQIFNLFS TKDSSAAWDE

     101  TLLDKFYTEL YQQLNDLEAC VIQGVGLTET PLMKEDSILA VRKYFQRITL

     151  YLKEKKYSPC AWEVVRAEIM RSFSLSTNLQ ESLRSNE

!!AA_SEQUENCE 1.0
ID   AAP20008 standard; protein; 119 AA.
XX
AC   AAP20008;
XX
DT   25-MAR-2003  (revised)
DT   18-DEC-1992  (first entry)
XX
DE   Hybrid human leukocyte interferon LeIFB.
XX
KW   Leukocyte; interferon; antitumor; immunostimulant; virucide; plasmid;
KW   pLe-IFB.
```

```
XX
OS   Homo sapiens.
XX
PN   EP51873-A.
XX
PD   19-MAY-1982.
XX
PF   09-NOV-1981;   81EP-00109579.
XX
PR   10-NOV-1980;   80US-00205379.
PR   10-NOV-1980;   80US-00205579.
PR   23-FEB-1981;   81US-00237388.
PR   25-SEP-1981;   81US-00305657.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN;
XX
DR   WPI; 1982-41788E/21.
DR   N-PSDB; AAN20006.
XX
PT   Hybrid human leukocyte interferon(s) - useful for treating viral and
PT   neoplastic diseases.
XX
PS   Disclosure; Fig 1; 54pp; English.
XX
CC   This protein may be expressed in Escherichia coli using expression vector
CC   plasmid pLe-IFB. See also AAN20005, AAN20007-12, AAN20026-30 and
CC   AAP20007, AAP20009-14. (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 119 AA;

  AAP20008  Length: 119  May 13, 2004 16:42  Type: P  Check: 778  ..

     1  ALTFYLMVAL VVLSYKSFSS LGCDLPQTHS LGNRRALILL AQMRRISPFS

    51  CLKDRHDFEF PQEEFDDKQF QKAQAISVLH EMIQQTFNLF STKDSSAALD

   101  ETLLDEFYIE LDSKESLYI

!!AA_SEQUENCE 1.0
ID   AAP20009 standard; protein; 188 AA.
XX
AC   AAP20009;
XX
DT   25-MAR-2003  (revised)
DT   18-DEC-1992  (first entry)
XX
DE   Hybrid human leukocyte interferon LeIFC.
XX
KW   Leukocyte; interferon; antitumor; immunostimulant; virucide; plasmid;
KW   pLe-IFC.
XX
OS   Homo sapiens.
XX
PN   EP51873-A.
XX
PD   19-MAY-1982.
XX
PF   09-NOV-1981;   81EP-00109579.
XX
PR   10-NOV-1980;   80US-00205379.
PR   10-NOV-1980;   80US-00205579.
PR   23-FEB-1981;   81US-00237388.
PR   25-SEP-1981;   81US-00305657.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN;
XX
DR   WPI; 1982-41788E/21.
DR   N-PSDB; AAN20007.
XX
PT   Hybrid human leukocyte interferon(s) - useful for treating viral and
PT   neoplastic diseases.
XX
PS   Disclosure; Fig 1; 54pp; English.
XX
CC   This protein may be expressed in Escherichia coli using expression vector
CC   plasmid pLe-IFC. See also AAN20005-6, AAN20008-12, AAN20026-30 and
CC   AAP20007-8 and AAP20010-14. (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 188 AA;

  AAP20009  Length: 188  May 13, 2004 16:42  Type: P  Check: 1237  ..

     1  ALSFSLLMAV LVLSYKSICS LGCDLPQTHS LGNRRALILL GQMGRISPFS

    51  CLKDRHDFRI PQEEFDGNQF QKAPAISVLH QMIQQTFNLF STEDSSAAWE

   101  QSLLEKFSTE LYQQLNDLEA CVIQEVGVEE TPLMNEDSIL AVRKYFQRIT

   151  LYLIERKYSP CAWEVVRAEI MRSLSFSTNL QKRLRRKD

!!AA_SEQUENCE 1.0
ID   AAP20168 standard; peptide; 10 AA.
XX
AC   AAP20168;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Decapeptide with activity similar to STF.
XX
KW   Serum thymic factor; radioimmunoassay; RIA; immunoregulant.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .4
FT                   /note= "may be truncated"
XX
PN   EP43247-A.
XX
PD   06-JAN-1982.
XX
PF   25-JUN-1981;   81EP-00302874.
XX
PR   25-JUN-1980;   80JP-00086952.
XX
PA   (KURE ) KUREHA KAGAKU KOGYO KK.
XX
PI   Yanaihara N,  Konno K;
XX
DR   WPI; 1982-02321E/02.
XX
PT   Deca:peptide(s) - useful in immunoassays for serum thymic factor because
PT   of similar physiological functions.
XX
PS   Claim 1; Page 20; 23pp; Japanese.
XX
CC   The peptide has a core sequence of SQGGSN and may have additional amino
CC   acids added to the N-terminus (see AAP20169,70). The peptide has
CC   physiological functions similar to those of seum thymic factor (STF) and
CC   may be labelled with radioactive iodine for use in the determn. of STF by
CC   radioimmunoassay and accurate measurement of STF in blood which is
CC   necessary when STF is used clinically as an immunoregulant. The peptide
CC   is easy to prepare by standard peptide synthesis techniques whereas STF
CC   is difficult to collect from animal blood and is difficult to purify.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 10 AA;

  AAP20168  Length: 10  May 13, 2004 16:42  Type: P  Check: 4239  ..
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```
      1  YQAKSQGGSN

!!AA_SEQUENCE 1.0
ID   AAP20170 standard; peptide; 10 AA.
XX
AC   AAP20170;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Decapeptide with activity similar to STF.
XX
KW   Serum thymic factor; radioimmunoassay; RIA; immunoregulant.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .3
FT                   /note= "may be truncated"
FT   Misc-difference 10
FT                   /note= "may be deleted"
XX
PN   EP43247-A.
XX
PD   06-JAN-1982.
XX
PF   25-JUN-1981;   81EP-00302874.
XX
PR   25-JUN-1980;   80JP-00086952.
XX
PA   (KURE ) KUREHA KAGAKU KOGYO KK.
XX
PI   Yanaihara N,  Konno K;
XX
DR   WPI; 1982-02321E/02.
XX
PT   Deca:peptide(s) - useful in immunoassays for serum thymic factor because
PT   of similar physiological functions.
XX
PS   Claim 1; Page 20; 23pp; Japanese.
XX
CC   The peptide has a core sequence of SQGGSN and may have additional amino
CC   acids added to the N- and C- terminus (see AAP20168,9,). The peptide has
CC   physiological functions similar to those of seum thymic factor (STF) and
CC   may be labelled with radioactive iodine for use in the determn. of STF by
CC   radioimmunoassay and accurate measurement of STF in blood which is
CC   necessary when STF is used clinically as an immunoregulant. The peptide
CC   is easy to prepare by standard peptide synthesis techniques whereas STF
CC   is difficult to collect from animal blood and is difficult to purify.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 10 AA;

   AAP20170  Length: 10  May 13, 2004 16:42  Type: P  Check: 4340  ..

      1  EAKSQGGSNY

!!AA_SEQUENCE 1.0
ID   AAP20169 standard; peptide; 9 AA.
XX
AC   AAP20169;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Peptide with activity similar to STF.
XX
KW   Serum thymic factor; radioimmunoassay; RIA; immunoregulant.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .3
FT                   /note= "may be truncated"
FT   Modified-site   3
FT                   /label= Lys-N-epsilon-Tyr-H
XX
PN   EP43247-A.
XX
PD   06-JAN-1982.
XX
PF   25-JUN-1981;   81EP-00302874.
XX
PR   25-JUN-1980;   80JP-00086952.
XX
PA   (KURE ) KUREHA KAGAKU KOGYO KK.
XX
PI   Yanaihara N,  Konno K;
XX
DR   WPI; 1982-02321E/02.
XX
PT   Deca:peptide(s) - useful in immunoassays for serum thymic factor because
PT   of similar physiological functions.
XX
PS   Claim 1; Page 20; 23pp; Japanese.
XX
CC   The peptide has a core sequence of SQGGSN and may have additional amino
CC   acids added to the N-terminus (see AAP20168,70). The peptide has
CC   physiological functions similar to those of seum thymic factor (STF) and
CC   may be labelled with radioactive iodine for use in the determn. of STF by
CC   radioimmunoassay and accurate measurement of STF in blood which is
CC   necessary when STF is used clinically as an immunoregulant. The peptide
CC   is easy to prepare by standard peptide synthesis techniques whereas STF
CC   is difficult to collect from animal blood and is difficult to purify.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 9 AA;

   AAP20169  Length: 9  May 13, 2004 16:42  Type: P  Check: 3450  ..

      1  EAKSQGGSN

!!AA_SEQUENCE 1.0
ID   AAP20138 standard; protein; 21 AA.
XX
AC   AAP20138;
XX
DT   19-AUG-1992  (first entry)
XX
DE   Sequence of des-Phe(B1) (human) insulin analogue chain A1.
XX
KW   Diabetes; therapy; insulin; hormone.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  6. .11
FT   Disulfide-bond  6
FT                   /note= "bonds to Cys(6) of the B2 chain"
FT   Disulfide-bond  20
FT                   /note= "bonds to Cys(18) of the B2 chain"
FT   Misc-difference 21
FT                   /note= "= D in soln. and N in crystalline form"
XX
PN   EP46979-A.
XX
PD   10-MAR-1982.
XX
PF   03-SEP-1980;   80DE-03033127.
XX
PR   03-SEP-1980;   80DE-03033127.
XX
PA   (FARH ) HOECHST AG.
XX
PI   Geiger R;
```

```
XX
DR   WPI; 1982-20140E/11.
XX
PT   Antidiabetic des-B1-phenylalanine human insulin - prepd. e.g. by Edman
PT   degradation of human insulin.
XX
PS   Claim 1; Page 9; 15pp; German.
XX
CC   The insulin analogues of the invention induce the formation of antibodies
CC   only to a slight extent, and show better glucose tolerance than porcine
CC   insulin. When residue 21 of chain A is Thr, the analogue has high
CC   solubility and is therefore suitable for the prodn. of conc. solns. for
CC   insulin pumps
XX
SQ   Sequence 21 AA;

   AAP20138  Length: 21  May 13, 2004 16:42  Type: P  Check: 7568  ..

       1  GIVEQCCTSI CSLYQLENYC B

!!AA_SEQUENCE 1.0
ID   AAP20139 standard; protein; 29 AA.
XX
AC   AAP20139;
XX
DT   19-AUG-1992  (first entry)
XX
DE   Sequence of des-Phe(B1) (human) insulin analogue chain B2.
XX
KW   Diabetes; therapy; insulin; hormone.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  6
FT                   /note= "bonds to Cys(7) of the A1 chain"
FT   Disulfide-bond  18
FT                   /note= "bonds to Cys(20) of the A1 chain"
FT   Misc-difference 30
FT                   /label= Thr, OH,
XX
PN   EP46979-A.
XX
PD   10-MAR-1982.
XX
PF   03-SEP-1980;   80DE-03033127.
XX
PR   03-SEP-1980;   80DE-03033127.
XX
PA   (FARH ) HOECHST AG.
XX
PI   Geiger R;
XX
DR   WPI; 1982-20140E/11.
XX
PT   Antidiabetic des-B1-phenylalanine human insulin - prepd. e.g. by Edman
PT   degradation of human insulin.
XX
PS   Claim 1; Page 9; 15pp; German.
XX
CC   The insulin analogues of the invention induce the formation of antibodies
CC   only to a slight extent, and show better glucose tolerance than porcine
CC   insulin. When residue 21 of chain A is Thr, the analogue has high
CC   solubility and is therefore suitable for the prodn. of conc. solns. for
CC   insulin pumps
XX
SQ   Sequence 29 AA;

   AAP20139  Length: 29  May 13, 2004 16:42  Type: P  Check: 3434  ..

       1  VNQHLCGSHL VEALYLVCGE RGFFYTPKT

!!AA_SEQUENCE 1.0
ID   AAP20136 standard; protein; 74 AA.
XX
AC   AAP20136;
XX
DT   26-NOV-1992  (first entry)
XX
DE   Alpha-amylase-inhibitor HOE 467-A which may be used for treating
DE   diabetes.
XX
KW   Alpha-amylase-inhibitor; enzyme-inhibitor; EC-3.2.1.1; diabetes;
KW   HOE 467-A; HOE 467-B.
XX
OS   Streptomyces tendae.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  11. .27
FT   Disulfide-bond  45. .73
XX
PN   EP49847-A.
XX
PD   21-APR-1982.
XX
PF   06-OCT-1981;   81EP-00107960.
XX
PR   09-OCT-1980;   80DE-03038130.
PR   26-FEB-1981;   81DE-03107106.
XX
PA   (FARH ) HOECHST AG.
XX
PI   Vertesy L,  Mracek M,  Braunitzer G,  Aschauer H;
XX
DR   WPI; 1982-33394E/17.
XX
PT   Alpha amylase inactivators for Streptomyces tendae - useful for lowering
PT   blood sugar levels.
XX
PS   Claim 2; Page 19; 24pp; German.
XX
CC   HOE 467-A, and its degradation product HOE 467-B, are prepared by
CC   cultivation of S. tendae ATCC 31210 or HAG 1266 and is recovered by
CC   adsorption on resins or by reverse-phase chromatography. The inactivators
CC   are used to regulate the level if sugars in the blood, especially for
CC   treating diabetes, pre-diabetes, or adiposity
XX
SQ   Sequence 74 AA;

   AAP20136  Length: 74  May 13, 2004 16:42  Type: P  Check: 9286  ..

       1  DTTVSEPAPS CVTLYQSWRY SQADNGCAET VTVKVVYEDD TEGLCYAVAP

      51  GQITTVGDGY IGSHGHARYL ARCL

!!AA_SEQUENCE 1.0
ID   AAP20193 standard; peptide; 42 AA.
XX
AC   AAP20193;
XX
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of immunogenic peptide which induces formation of antibodies to
DE   human fibroblast interferon.
XX
KW   Human fibroblast interferon; antigen; antibody; assay; purify.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .21
FT                   /note= "this peptide is repeated between 2 and 12 times"
XX
PN   US4311639-A.
XX
PD   19-JAN-1982.
```

```
XX
PF   25-JUL-1980;   80US-00172467.
XX
PR   25-JUL-1980;   80US-00172467.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Ganfield DJ,  Hunkapille MW,  Knight E,  Korant BD;
XX
DR   WPI; 1982-09833E/05.
XX
PT   Immunogenic twenty-one aminoacid peptide and its oligomers - induces
PT   formation of antibodies to human fibroblast interferon when introduced
PT   into laboratory animals.
XX
PS   Claim 3; Col 16; 9pp; English.
XX
CC   Upon introduction into certain laboratory animals (e.g. rabbits), the
CC   peptides of the invention induce the formation of anibodies which react
CC   with human fibroblast interferon and which can thus be used for assaying
CC   or for purifying (affinity chromatography) human fibroblast interferon
XX
SQ   Sequence 42 AA;

   AAP20193  Length: 42  May 13, 2004 16:42  Type: P  Check: 146  ..

       1  SSYNLLGFLQ RSSNFQHQKL LSSYNLLGFL QRSSNFQHQK LL

!!AA_SEQUENCE 1.0
ID   AAP20195 standard; peptide; 42 AA.
XX
AC   AAP20195;
XX
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of immunogenic peptide which induces formation of antibodies to
DE   human fibroblast interferon.
XX
KW   Human fibroblast interferon; antigen; antibody; assay; purify.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .21
FT                   /note= "this peptide is repeated between 2 and 12 times"
XX
PN   US4311639-A.
XX
PD   19-JAN-1982.
XX
PF   25-JUL-1980;   80US-00172467.
XX
PR   25-JUL-1980;   80US-00172467.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Ganfield DJ,  Hunkapille MW,  Knight E,  Korant BD;
XX
DR   WPI; 1982-09833E/05.
XX
PT   Immunogenic twenty-one aminoacid peptide and its oligomers - induces
PT   formation of antibodies to human fibroblast interferon when introduced
PT   into laboratory animals.
XX
PS   Claim 5; Col 16; 9pp; English.
XX
CC   Upon introduction into certain laboratory animals (e.g. rabbits), the
CC   peptides of the invention induce the formation of anibodies which react
CC   with human fibroblast interferon and which can thus be used for assaying
CC   or for purifying (affinity chromatography) human fibroblast interferon
XX
SQ   Sequence 42 AA;

   AAP20195  Length: 42  May 13, 2004 16:42  Type: P  Check: 9871  ..

       1  SSYNLLGFLQ RSSNFQCQKL LSSYNLLGFL QRSSNFQCQK LL

!!AA_SEQUENCE 1.0
ID   AAP20194 standard; peptide; 42 AA.
XX
AC   AAP20194;
XX
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of immunogenic peptide which induces formation of antibodies to
DE   human fibroblast interferon.
XX
KW   Human fibroblast interferon; antigen; antibody; assay; purify.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .21
FT                   /note= "this peptide is repeated between 2 and 12 times"
XX
PN   US4311639-A.
XX
PD   19-JAN-1982.
XX
PF   25-JUL-1980;   80US-00172467.
XX
PR   25-JUL-1980;   80US-00172467.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Ganfield DJ,  Hunkapille MW,  Knight E,  Korant BD;
XX
DR   WPI; 1982-09833E/05.
XX
PT   Immunogenic twenty-one aminoacid peptide and its oligomers - induces
PT   formation of antibodies to human fibroblast interferon when introduced
PT   into laboratory animals.
XX
PS   Claim 4; Col 16; 9pp; English.
XX
CC   Upon introduction into certain laboratory animals (e.g. rabbits), the
CC   peptides of the invention induce the formation of anibodies which react
CC   with human fibroblast interferon and which can thus be used for assaying
CC   or for purifying (affinity chromatography) human fibroblast interferon
XX
SQ   Sequence 42 AA;

   AAP20194  Length: 42  May 13, 2004 16:42  Type: P  Check: 9733  ..

       1  MSYNLLGFLQ RSSNFQCQKL LMSYNLLGFL QRSSNFQCQK LL

!!AA_SEQUENCE 1.0
ID   AAP20191 standard; peptide; 252 AA.
XX
AC   AAP20191;
XX
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of immunogenic peptide which induces formation of antibodies to
DE   human fibroblast interferon.
XX
KW   Human fibroblast interferon; antigen; antibody; assay; purify.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .21
FT                   /note= "this peptide is repeated between 2 and 12 times"
FT   Misc-difference 1
FT                   /label= M, S
FT                   /note= "residues 22, 43, 64, 85, 106, 127, 148, 169, 190,
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FT                  201, 222 are also M, S"
FT   Misc-difference 17
FT                  /label= H, C
FT                  /note= "residues 38, 49, 70, 91, 112, 133, 154, 175, 196,
FT                  217, 238 are also H, C"
XX
PN   US4311639-A.
XX
PD   19-JAN-1982.
XX
PF   25-JUL-1980;   80US-00172467.
XX
PR   25-JUL-1980;   80US-00172467.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Ganfield DJ,  Hunkapille MW,  Knight E,  Korant BD;
XX
DR   WPI; 1982-09833E/05.
XX
PT   Immunogenic twenty-one aminoacid peptide and its oligomers - induces
PT   formation of antibodies to human fibroblast interferon when introduced
PT   into laboratory animals.
XX
PS   Claim 1; Col 15; 9pp; English.
XX
CC   Upon introduction into certain laboratory animals (e.g. rabbits), the
CC   peptides of the invention induce the formation of anibodies which react
CC   with human fibroblast interferon and which can thus be used for assaying
CC   or for purifying (affinity chromatography) human fibroblast interferon
XX
SQ   Sequence 252 AA;

  AAP20191  Length: 252  May 13, 2004 16:42  Type: P  Check: 6480  ..

      1  XSYNLLGFLQ RSSNFQXQKL LXSYNLLGFL QRSSNFQXQK LLXSYNLLGF

     51  LQRSSNFQXQ KLLXSYNLLG FLQRSSNFQX QKLLXSYNLL GFLQRSSNFQ

    101  XQKLLXSYNL LGFLQRSSNF QXQKLLXSYN LLGFLQRSSN FQXQKLLXSY

    151  NLLGFLQRSS NFQXQKLLXS YNLLGFLQRS SNFQXQKLLX SYNLLGFLQR

    201  SSNFQXQKLL XSYNLLGFLQ RSSNFQXQKL LXSYNLLGFL QRSSNFQXQK

    251  LL

!!AA_SEQUENCE 1.0
ID   AAP20192 standard; peptide; 42 AA.
XX
AC   AAP20192;
XX
DT   14-AUG-1992  (first entry)
XX
DE   Sequence of immunogenic peptide which induces formation of antibodies to
DE   human fibroblast interferon..
XX
KW   Human fibroblast interferon; antigen; antibody; assay; purify.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .21
FT                  /note= "this peptide is repeated between 2 and 12 times"
XX
PN   US4311639-A.
XX
PD   19-JAN-1982.
XX
PF   25-JUL-1980;   80US-00172467.
XX
PR   25-JUL-1980;   80US-00172467.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Ganfield DJ,  Hunkapille MW,  Knight E,  Korant BD;
XX
DR   WPI; 1982-09833E/05.
XX
PT   Immunogenic twenty-one aminoacid peptide and its oligomers - induces
PT   formation of antibodies to human fibroblast interferon when introduced
PT   into laboratory animals.
XX
PS   Claim 2; Col 16; 9pp; English.
XX
CC   Upon introduction into certain laboratory animals (e.g. rabbits), the
CC   peptides of the invention induce the formation of anibodies which react
CC   with human fibroblast interferon and which can thus be used for assaying
CC   or for purifying (affinity chromatography) human fibroblast interferon
XX
SQ   Sequence 42 AA;

    AAP20192  Length: 42  May 13, 2004 16:42  Type: P  Check: 8  ..

      1  MSYNLLGFLQ RSSNFQHQKL LMSYNLLGFL QRSSNFQHQK LL

!!AA_SEQUENCE 1.0
ID   AAP20262 standard; peptide; 29 AA.
XX
AC   AAP20262;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Modified insulin B chain.
XX
KW   Intermediates; human; diabetes.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  7
FT                  /note= "bonds to Cys 7 of A chain"
FT   Disulfide-bond  19
FT                  /note= "bonds to Cys 20 of A chain"
FT   Modified-site   22
FT                  /label= protected
FT                  /note= "e.g. 2,3-butanedione, phenylglyoxal etc."
FT   Modified-site   29
FT                  /note= "C-terminal protected with hydroxy and carboxy
FT                  protecting gps."
XX
PN   JP57118546-A.
XX
PD   23-JUL-1982.
XX
PF   14-JAN-1981;   81JP-00175029.
XX
PR   13-APR-1979;   79JP-00045709.
PR   26-AUG-1983;   86JP-00266446.
XX
PA   (SHIO ) SHIONOGI & CO LTD.
XX
DR   WPI; 1982-73248E/35.
XX
PT   Insulin derivs. - where arginine at 22-position in B-chain is protected.
XX
PS   Claim 2; Page 1; 12pp; Japanese.
XX
CC   The peptide is the B chain of an insulin deriv. in which the arginine
CC   residue at position 22 is protected. The modified B chain is disulphide
CC   bonded to an unmodified A chain in the usual manner. The modified insulin
CC   deriv. is useful as an intermediate for preparing human insulin which can
CC   be utilised in the treatment of diabetes. (Updated on 25-MAR-2003 to
CC   correct PF field.) (Updated on 25-MAR-2003 to correct PR field.) (Updated
CC   on 25-MAR-2003 to correct PA field.)
```

```
XX
SQ   Sequence 29 AA;

   AAP20262  Length: 29  May 13, 2004 16:42  Type: P  Check: 3125  ..

       1  FVNQHLCGSH LVEALTLVCG ERGFFYTPK

!!AA_SEQUENCE 1.0
ID   AAP20003 standard; protein; 235 AA.
XX
AC   AAP20003;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Preprothaumatine allele.
XX
KW   Thaumatin; UV5; tryptophan; M13; promoter; sweetener.
XX
OS   Thaumatococcus daniellii.
XX
PN   EP54331-A.
XX
PD   23-JUN-1982.
XX
PF   12-DEC-1980;   80GB-00039854.
XX
PR   12-DEC-1980;   80GB-00039854.
XX
PA   (UNIL ) UNILEVER NV.
PA   (ITOC-) INT OCTROOI MAAT OC.
XX
PI   Verrips CT,  Mast J,  Edens L,  Ledeboer AM;
XX
DR   WPI; 1982-52781E/26.
DR   N-PSDB; AAN20003.
XX
PT   DNA sequences coding for preprothaumatin - and its partly processed
PT   forms, and recombinant plasmid(s) contg. them.
XX
PS   Disclosure; Fig 1; 46pp; English.
XX
CC   The sequence given is encoded by one of the allelic forms of
CC   preprothaumatine. The DNA encoding this sequence and the other allelic
CC   sequences can be inserted into expression plasmids with a regulatory
CC   sequence, pref. a double lac UV5 system, a modified tryptophan system or
CC   a modified M13 gene VIII system. The plasmids can be used to transform
CC   microbes to produce large amounts of thaumatin efficiently. Thaumatin, in
CC   its fully processed form is a sweetener 1600 times sweeter than sucrose
CC   on a wt. basis. (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 235 AA;

   AAP20003  Length: 235  May 13, 2004 16:42  Type: P  Check: 969  ..

       1  MAATTCFFFL FPFLLLLTLS RAATFEIVNR CSYTVWAAAS KGDAALDAGG

      51  RQLNSGESWT INVEPGTKGG KIWARTDCYF DDSGRGICRT GDCGGLLQCK

     101  RFGRPPTTLA EFSLNQYGKD YIDISNIKGF NVPMDFSPTT RGCRGVRCAA

     151  DIVGQCPAKL KAPGGGCNDA CTVFHTSEYS CTTGKSGPTE YSRFFKRLCP

     201  DAFSYVLDKP TTVTCPGSSN YRVTFCPTAL ELEDE

!!AA_SEQUENCE 1.0
ID   AAP20037 standard; protein; 2209 AA.
XX
AC   AAP20037;
XX
DT   28-OCT-2003  (revised)
DT   27-AUG-2003  (revised)
DT   25-MAR-2003  (revised)
DT   05-AUG-1992  (first entry)
XX
DE   Sequence encoded by a full-length cDNA copy of the poliovirus genome in
DE   plasmid pVR106.
XX
KW   Poliovirus; picornavirus; vaccine; antigen; immunogen.
XX
OS   Homo sapiens; poliovirus.
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Protein         1. .69
FT                   /label= P4
FT   Protein         70. .341
FT                   /label= VP2
FT   Protein         342. .579
FT                   /label= VP3
FT   Protein         580. .881
FT                   /label= VP1
FT   Protein         882. .1030
FT                   /label= 3b
FT   Protein         1031. .1127
FT                   /label= 5b
FT   Protein         1128. .1456
FT                   /label= X
FT   Protein         1457. .1543
FT                   /label= 1b
FT   Protein         1544. .1565
FT                   /label= VPg
FT   Protein         1566. .1748
FT                   /label= 2
FT   Protein         1749. .2209
FT                   /label= 4(p(63)
XX
PN   WO8203632-A.
XX
PD   28-OCT-1982.
XX
PF   20-APR-1981;   81US-00255879.
XX
PR   20-APR-1981;   81US-00255879.
PR   12-NOV-1981;   81US-00320525.
XX
PA   (MASI ) MASSACHUSETTS INST TECHNOLOGY.
XX
PI   Baltimore D,  Racaniello VR;
XX
DR   WPI; 1982-95059E/44.
DR   N-PSDB; AAN20042.
XX
PT   Prodn. of CDNA representing viral RNA sequences - by transcription,
PT   insertion into vector and host cell transformation.
XX
PS   Example; Table 1, pages 25-31; 50pp; English.
XX
CC   Plasmid pVR106 was produced by combining plasmids pVR104 and pVR105. It
CC   contains a full-length cDNA copy of the poliovirus genome. E.coli HB101
CC   contg. this plasmid has been registered as ATCC 31844. The full-length
CC   poliovirus cDNA molecule is itself infectious and can be introduced into
CC   cells and these cultured to produce RNA virus. Alternatively, the
CC   infectious cDNA can be treated with mutagens and the altered material
CC   used to infect cells so that attenuated virual RNA is prod. and this used
CC   to make vaccines. For antibody prodn., cDNA capable of directing antigen
CC   prodn. is selected and isolated and incorporated into cells which are
CC   incubated to produce RNA antigen. (Updated on 25-MAR-2003 to correct PA
CC   field.) (Updated on 27-AUG-2003 to correct OS field.) (Updated on 28-OCT-
CC   2003 to standardise OS field)
XX
SQ   Sequence 2209 AA;

  AAP20037  Length: 2209  May 13, 2004 16:42  Type: P  Check: 7684  ..

       1  MGAQVSSQKV GAHENSNRAY GGSTINYTTI NYYRDSASNA ASKQDFSQDP
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  51  SKFTEPIKDV LIKTAPMLNS PNIEACGYSD RVLQLTLGNS TITTQEAANS
 101  VVAYGRWPEY LRDSEANPVD QPTEPDVAAC RFYTLDTVSW TKESRGWWWK
 151  LPDALRDMGL FGQNMYYHYL GRSGYTVHVQ CNASKFHQGA LGVFAVPEMC
 201  LAGDSNTTTM HTSYQNANPG EKGGTFTGTF TPDNNQTSPA RRFCPVDYLL
 251  GNGTLLGNAF VFPHQIINLR TNNCATLVLP YVNSLSIDSM VKQNNWGIAI
 301  LPLAPLNFAS ESSPEIPITL TIAPMCCEFN GLRNITLPRL QGLPVMNTPG
 351  SNQYLTADNF QSPCALPEFD VTPPIDIPGE VKNMMELAEI DTMIPFDLSA
 401  TKKNTMEMYR VRLSDKPHTD DPILCLSLSP ASDPRLSHTM LGEILNYYTH
 451  WAGSLKFTFL FCGSMMATGK LLVSYAPPGA DPPKKRKEAM LGTHVIWDIG
 501  LQSSCTMVVP WISNTTYRQT IDDSFTEGGY ISVFYQTRIV VPLSTPREMD
 551  ILGFVSACND FSVRLLRDTT HIEQKALAQG LGQMLESMID NTVRETVGAA
 601  TSRDALPNTE ASGPTHSKEI PALTAVETGA TNPLVPSDTV QTRHVVQHRS
 651  RSESSIESFF ARGACVTIMT VDNPASTTNK DKLFAVWKIT YKDTVQLRRK
 701  LEFFTYSRFD MELTFVVTAN FTETNNGHAL NQVYQIMYVP PGAPVPEKWD
 751  DYTWQTSSNP SIFYTYGTAP ARISVPYVGI SNAYSHFYDG FSKVPLKDQS
 801  AALGDSLYGA ASLNDFGILA VRVVNDHNAT KVTSKIRVYL KPKHIRVWCP
 851  RPPRAVAYYG PGVDYKDGTL TPLSTKDLTT YGFGHQNKAV YTAGYKICNY
 901  HLATQDDLQN AVNVMWSRDL LVTESRAQGT DSIARCNCNA GVYYCESRRK
 951  YYPVSFVGPT FQYMEANNYY PARYQSHMLI GHGFASPGDC GGILRCHHGV
1001  IGIITAGGEG LVAFSDIRDL YAYEEEAMEQ GITNYIESLG AAFGSGFTQQ
1051  ISDKITELTN MVTSTITEKL LKNLIKIISS LVIITRNYED TTTVLATLAL
1101  LGCDASPWQW LRKKACDVLE IPYVIKQGDS WLKKFTEACN AAKGLEWVSN
1151  KISKFIDWLK EKIIPQARDK LEFVTKLRQL EMLENQISTI HQSCPSQEHQ
1201  EILFNNVRWL SIQSKRFAPL YAVEAKRIQK LEHTINNYIQ FKSKHRIEPV
1251  CLLVHGSPGT GKSVATNLIA RAIAERENTS TYSLPPDPSH FDGYKQQGVV
1301  IMDDLNQNPD GADMKLFCQM VSTVEFIPPM ASLEEKGILF TSNYVLASTN
1351  SSRISPPTVA HSDALARRFA FDMDIEVMNE YSRDGKLNMA MATEMCKNCH
1401  QPANFKRCCP LVCGKAIQLM DKSSRVRYSI DQITTMIINE RNRRSNIGNC
1451  MEALFQGPLQ YKDLKIDIKT SPPPECINDL LQAVDSQEVR DYCEKKGWIV
1501  NITSQVQTER NINRAMTILQ AVTTFAAVAG VVYVMYKLFA GHQGAYTGLP
1551  NKKPNVPTIR TAKVQGPGFD YAVAMAKRNI VTATTSKGEF TMLGVHDNVA
1601  ILPTHASPGE SIVIDGKEVE ILDAKALEDQ AGTNLEITII TLKRNEKFRD
1651  IRPHIPTQIT ETNDGVLIVN TSKYPNMYVP VGAVTEQGYL NLGGRQTART
1701  LMYNFPTRAG QCGGVITCTG KVIGMHVGGN GSHGFAAALK RSYFTQSQGE
1751  SQWMRPSKQL GYPIINAPSK TKLEPSAFHY VFEGVKEPAV LTKNDPRLKT
1801  DFEEAIFSKY VGNKITEVDE YMKEAVDHYA GQLMSLDINT EQMCLEDAMY
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  1851  GTDALEALDL STSAGYPYVA MGKKKRDILN KQTRDTKEMQ KLLDTYGINL
  1901  PLVTYVKDEL RSKTKVEQGK SRLIEASSLN DSVAMRMAFG NLYAAFHKNP
  1951  GVITGSAVGC DPDLFWSKIP VLMEEKLFAF DYTGYDASLS PAWFEALKMV
  2001  LEKIGFGDRV DYIDYLNHSH HLYKNKTYCV KGGMPSGCSG TSIFNSMINN
  2051  LIIRTLLLKT YKGIDLDHLK MIAYGDDVIA SYPHEVDASL LAQSGKDYGL
  2101  TMTPADKSAH FETVTWENVT FLKRFFRADE KYPFLIHPVM PMKEIHESIR
  2151  WTKHPRNTQD HVRSLCLLAW HNGEEEYNKF LAKIRSVPIG RALLLPEYST
  2201  LYRRWLDSF
```

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!!AA_SEQUENCE 1.0
ID   AAP20309 standard; peptide; 32 AA.
XX
AC   AAP20309;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Peptide prepd. by reaction in the presence of trypsin.
XX
KW   Trypsin; thiol; trypsin-like proteinase.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .7
FT                   /note= "possible bond"
FT   Modified-site   1
FT                   /label= protected
FT                   /note= "with H or thiol protecting gp."
FT   Modified-site   7
FT                   /label= protected
FT                   /note= "with H or thiol protecting gp."
FT   Modified-site   32
FT                   /label= amidated
XX
PN   JP57009748-A.
XX
PD   19-JAN-1982.
XX
PF   20-JUN-1980;   80JP-00082788.
XX
PR   18-JUN-1980;   84JP-00268537.
XX
PA   (SAGA ) SAGAMI CHEM RES CENTRE.
PA   (TEIK ) TEIKOKU HORMONE MFG CO LTD.
XX
DR   WPI; 1982-14912E/08.
XX
PT   29 Membered polypeptide chain - obtd. by reacting 24 and 4 membered
PT   peptide(s) in the presence of trypsin.
XX
PS   Claim 1; Page 1; 18pp; Japanese.
XX
CC   The modified peptide was produced via a method comprising reaction with a
CC   tetrapeptide in a medium contg. buffer soln. at pH 4-10 in the presence
CC   of trypsin or trypsin like proteinase. See also AAP20305-8. (Updated on
CC   25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 32 AA;

   AAP20309  Length: 32  May 13, 2004 16:42  Type: P  Check: 967  ..

       1  CSNLSTCVLG KLSQELHKLQ TYPRTDVGAG TP

!!AA_SEQUENCE 1.0
ID   AAP20305 standard; peptide; 24 AA.
```

```
XX
AC   AAP20305;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   24 residue peptide used in the prodn. of a 29 residue peptide.
XX
KW   Trypsin; thiol; trypsin-like proteinase.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .7
FT                   /note= "possible bond"
FT   Modified-site   1
FT                   /label= protected
FT                   /note= "with H or thiol protecting gp."
FT   Modified-site   7
FT                   /label= protected
FT                   /note= "with H or thiol protecting gp."
XX
PN   JP57009748-A.
XX
PD   19-JAN-1982.
XX
PF   20-JUN-1980;   80JP-00082788.
XX
PR   18-JUN-1980;   84JP-00268537.
XX
PA   (SAGA ) SAGAMI CHEM RES CENTRE.
PA   (TEIK ) TEIKOKU HORMONE MFG CO LTD.
XX
DR   WPI; 1982-14912E/08.
XX
PT   29 Membered polypeptide chain - obtd. by reacting 24 and 4 membered
PT   peptide(s) in the presence of trypsin.
XX
PS   Claim 1; Page 1; 18pp; Japanese.
XX
CC   The modified peptide is used in a method to create a 29 residue peptide
CC   by reaction with a tetrapeptide in a medium contg. buffer soln. at pH 4-
CC   10 in the presence of trypsin or trypsin like proteinase. See also
CC   AAP20306-9 (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 24 AA;

   AAP20305  Length: 24  May 13, 2004 16:42  Type: P  Check: 3610  ..

      1  CSNLSTCVLG KLSQELHKLQ TYPR

!!AA_SEQUENCE 1.0
ID   AAP20308 standard; peptide; 32 AA.
XX
AC   AAP20308;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Peptide prepd. by reaction in the presence of trypsin.
XX
KW   Trypsin; thiol; trypsin-like proteinase.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1. .7
FT                   /note= "possible bond"
FT   Modified-site   1
FT                   /label= protected
FT                   /note= "with H or thiol protecting gp."
FT   Modified-site   7
FT                   /label= protected
FT                   /note= "with H or thiol protecting gp."
FT   Modified-site   32
FT                   /label= amidated
XX
PN   JP57009748-A.
XX
PD   19-JAN-1982.
XX
PF   20-JUN-1980;   80JP-00082788.
XX
PR   18-JUN-1980;   84JP-00268537.
XX
PA   (SAGA ) SAGAMI CHEM RES CENTRE.
PA   (TEIK ) TEIKOKU HORMONE MFG CO LTD.
XX
DR   WPI; 1982-14912E/08.
XX
PT   29 Membered polypeptide chain - obtd. by reacting 24 and 4 membered
PT   peptide(s) in the presence of trypsin.
XX
PS   Claim 1; Page 1; 18pp; Japanese.
XX
CC   The modified peptide was produced via a method comprising reaction with a
CC   tetrapeptide in a medium contg. buffer soln. at pH 4-10 in the presence
CC   of trypsin or trypsin like proteinase. See also AAP20305-9 (Updated on 25
CC   -MAR-2003 to correct PA field.)
XX
SQ   Sequence 32 AA;

   AAP20308  Length: 32  May 13, 2004 16:42  Type: P  Check: 1695  ..

      1  CSNLSTCVLG KLSQELHKLQ TYPRTNTGSG TP

!!AA_SEQUENCE 1.0
ID   AAP20247 standard; peptide; 4 AA.
XX
AC   AAP20247;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Hydrolysable peptide.
XX
KW   Sensitive measure; t-butyloxycarbonyl.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /label= Modified_C-terminal
XX
PN   JP57075957-A.
XX
PD   12-MAY-1982.
XX
PF   29-OCT-1980;   80JP-00151610.
XX
PR   29-OCT-1980;   80JP-00151610.
XX
PA   (TORI ) TORII YAKUHIN KK.
XX
DR   WPI; 1982-50885E/25.
XX
PT   Peptide derivs. - which act as substrates hydrolysable by various enzymes
PT   useful for determn. of enzyme potency and purity.
XX
PS   Claim 1; Page 1; 4pp; Japanese.
XX
CC   The sequence given is an example of a hydrolysable peptide used within
CC   the scope of the invention to act as a substrate which can be hydrolysed
CC   by various enzymes. This peptide can be useful as a highly sensitive
CC   measure of the purity, potency etc. of enzymes. The N-terminal end of
CC   this peptide is pref. protected by an amino group, esp. t-
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CC butyloxycarbonyl. The C-terminal is also modified. (Updated on 25-MAR-
CC 2003 to correct PR field.)
XX
SQ Sequence 4 AA;

AAP20247 Length: 4 May 13, 2004 16:42 Type: P Check: 777 ..

1 QKRK

!!AA_SEQUENCE 1.0
ID AAP20282 standard; peptide; 34 AA.
XX
AC AAP20282;
XX
DT 15-DEC-1992 (first entry)
XX
DE Peptide fragment of human parathormone used for the production of
DE antibodies.
XX
KW Parathyroid hormone; parathormone; antibody.
XX
OS Synthetic.
XX
PN GB2092160-A.
XX
PD 11-AUG-1982.
XX
PF 30-DEC-1981; 81GB-00039060.
XX
PR 29-DEC-1980; 80JP-00187686.
PR 16-APR-1981; 81JP-00057691.
PR 25-SEP-1981; 81JP-00152377.
XX
PA (TOXN) TOYO JOZO KK.
XX
PI Katsuragi S, Nakagawa N, Taniuchi M, Ohyama K, Noda T, Morita K;
PI Kobari S, Watanabe S;
XX
DR WPI; 1982-66400E/32.
XX
PT Polypeptide fragments of human parathyroid hormone - useful in assay of
PT the hormone after enzyme-or radio-labelling.
XX
PS Claim 1; Page 30; 32pp; English.
XX
CC The peptide is useful in the assay of human parathormone, especially by
CC radioimmunoassay or enzyme immunoassay. It is used in the production of
CC antibodies, especially after conjugation with a protein such as cattle
CC serum albumin. The resulting antiserum is purified and may be immobilized
CC for use in the assays. See also AAP20281 and AAP20283-85
XX
SQ Sequence 34 AA;

AAP20282 Length: 34 May 13, 2004 16:42 Type: P Check: 4780 ..

1 YPRKKEDNVL VESHEKSLGE ADKADVDVLT AKSQ

!!AA_SEQUENCE 1.0
ID AAP20285 standard; peptide; 39 AA.
XX
AC AAP20285;
XX
DT 15-DEC-1992 (first entry)
XX
DE Peptide fragment of human parathormone used for the production of
DE antibodies.
XX
KW Parathyroid hormone; parathormone; antibody.
XX
OS Synthetic.
XX
PN GB2092160-A.
XX
PD 11-AUG-1982.
XX
PF 30-DEC-1981; 81GB-00039060.
XX
PR 29-DEC-1980; 80JP-00187686.
PR 16-APR-1981; 81JP-00057691.
PR 25-SEP-1981; 81JP-00152377.
XX
PA (TOXN) TOYO JOZO KK.
XX
PI Katsuragi S, Nakagawa N, Taniuchi M, Ohyama K, Noda T, Morita K;
PI Kobari S, Watanabe S;
XX
DR WPI; 1982-66400E/32.
XX
PT Polypeptide fragments of human parathyroid hormone - useful in assay of
PT the hormone after enzyme-or radio-labelling.
XX
PS Claim 1; Page 30; 32pp; English.
XX
CC The peptide is useful in the assay of human parathormone, especially by
CC radioimmunoassay or enzyme immunoassay. It is used in the production of
CC antibodies, especially after conjugation with a protein such as cattle
CC serum albumin. The resulting antiserum is purified and may be immobilized
CC for use in the assays. See also AAP20281-84
XX
SQ Sequence 39 AA;

AAP20285 Length: 39 May 13, 2004 16:42 Type: P Check: 8765 ..

1 CAGSQRPRKK EDNVLVESHE KSLGEADKAD VDVLTAKSQ

!!AA_SEQUENCE 1.0
ID AAP20281 standard; peptide; 32 AA.
XX
AC AAP20281;
XX
DT 15-DEC-1992 (first entry)
XX
DE Peptide fragment of human parathormone used for the production of
DE antibodies.
XX
KW Parathyroid hormone; parathormone; antibody.
XX
OS Synthetic.
XX
PN GB2092160-A.
XX
PD 11-AUG-1982.
XX
PF 30-DEC-1981; 81GB-00039060.
XX
PR 29-DEC-1980; 80JP-00187686.
PR 16-APR-1981; 81JP-00057691.
PR 25-SEP-1981; 81JP-00152377.
XX
PA (TOXN) TOYO JOZO KK.
XX
PI Katsuragi S, Nakagawa N, Taniuchi M, Ohyama K, Noda T, Morita K;
PI Kobari S, Watanabe S;
XX
DR WPI; 1982-66400E/32.
XX
PT Polypeptide fragments of human parathyroid hormone - useful in assay of
PT the hormone after enzyme-or radio-labelling.
XX
PS Claim 1; Page 30; 32pp; English.
XX
CC The peptide is useful in the assay of human parathormone, especially by
CC radioimmunoassay or enzyme immunoassay. It is used in the production of
CC antibodies, especially after conjugation with a protein such as cattle
CC serum albumin. The resulting antiserum is purified and may be immobilized
CC for use in the assays. See also AAP20282-85

XX
SQ Sequence 32 AA;

AAP20281 Length: 32 May 13, 2004 16:42 Type: P Check: 9724 ..

1 YKKEDNVLVE SHEKSLGEAD KADVDVLTAK SQ

!!AA_SEQUENCE 1.0
ID AAP20284 standard; peptide; 37 AA.
XX
AC AAP20284;
XX
DT 15-DEC-1992 (first entry)
XX
DE Peptide fragment of human parathormone used for the production of
DE antibodies.
XX
KW Parathyroid hormone; parathormone; antibody.
XX
OS Synthetic.
XX
PN GB2092160-A.
XX
PD 11-AUG-1982.
XX
PF 30-DEC-1981; 81GB-00039060.
XX
PR 29-DEC-1980; 80JP-00187686.
PR 16-APR-1981; 81JP-00057691.
PR 25-SEP-1981; 81JP-00152377.
XX
PA (TOXN) TOYO JOZO KK.
XX
PI Katsuragi S, Nakagawa N, Taniuchi M, Ohyama K, Noda T, Morita K;
PI Kobari S, Watanabe S;
XX
DR WPI; 1982-66400E/32.
XX
PT Polypeptide fragments of human parathyroid hormone - useful in assay of
PT the hormone after enzyme-or radio-labelling.
XX
PS Claim 1; Page 30; 32pp; English.
XX
CC The peptide is useful in the assay of human parathormone, especially by
CC radioimmunoassay or enzyme immunoassay. It is used in the production of
CC antibodies, especially after conjugation with a protein such as cattle
CC serum albumin. The resulting antiserum is purified and may be immobilized
CC for use in the assays. See also AAP20281-3 and AAP20285
XX
SQ Sequence 37 AA;

AAP20284 Length: 37 May 13, 2004 16:42 Type: P Check: 2921 ..

1 YAGSQRKKED NVLVESHEKS LGEADKADVD VLTAKSQ

!!AA_SEQUENCE 1.0
ID AAP20283 standard; peptide; 37 AA.
XX
AC AAP20283;
XX
DT 15-DEC-1992 (first entry)
XX
DE Peptide fragment of human parathormone used for the production of
DE antibodies.
XX
KW Parathyroid hormone; parathormone; antibody.
XX
OS Synthetic.
XX
PN GB2092160-A.
XX
PD 11-AUG-1982.
XX
PF 30-DEC-1981; 81GB-00039060.
XX
PR 29-DEC-1980; 80JP-00187686.
PR 16-APR-1981; 81JP-00057691.
PR 25-SEP-1981; 81JP-00152377.
XX
PA (TOXN) TOYO JOZO KK.
XX
PI Katsuragi S, Nakagawa N, Taniuchi M, Ohyama K, Noda T, Morita K;
PI Kobari S, Watanabe S;
XX
DR WPI; 1982-66400E/32.
XX
PT Polypeptide fragments of human parathyroid hormone - useful in assay of
PT the hormone after enzyme-or radio-labelling.
XX
PS Claim 1; Page 30; 32pp; English.
XX
CC The peptide is useful in the assay of human parathormone, especially by
CC radioimmunoassay or enzyme immunoassay. It is used in the production of
CC antibodies, especially after conjugation with a protein such as cattle
CC serum albumin. The resulting antiserum is purified and may be immobilized
CC for use in the assays. See also AAP20281-2 and AAP20284-5
XX
SQ Sequence 37 AA;

AAP20283 Length: 37 May 13, 2004 16:42 Type: P Check: 2899 ..

1 CAGSQRKKED NVLVESHEKS LGEADKADVD VLTAKSQ

!!AA_SEQUENCE 1.0
ID AAP20147 standard; protein; 12 AA.
XX
AC AAP20147;
XX
DT 06-JUL-1992 (first entry)
XX
DE Influenza virus antigen.
XX
KW Influenza virus; antigen; vaccine.
XX
OS Synthetic.
XX
PN DE3200813-A.
XX
PD 12-AUG-1982.
XX
PF 13-JAN-1981; 81IL-00061904.
XX
PR 13-JAN-1981; 81IL-00061904.
XX
PA (YEDA) YEDA RES & DEV CO LTD.
XX
PI Arnon R, Shapira M, Mueller G;
XX
DR WPI; 1982-68417E/33.
XX
PT synthetic vaccine for virus infections - contg. synthetic peptide virus
PT antigen fragment on carrier, esp. synthetic influenza antigen on tetanus
PT toxoid carrier.
XX
PS Claim 5; Page 2; 16pp; German.
XX
CC The synthetic peptide corresponds to an antigen fraction of influenza
CC virus, and is attached to a carrier for use as a vaccine against
CC influenza
XX
SQ Sequence 12 AA;

AAP20147 Length: 12 May 13, 2004 16:42 Type: P Check: 6286 ..

1 PSTDEEQTSL YV

```
!!AA_SEQUENCE 1.0
ID   AAP20245 standard; peptide; 13 AA.
XX
AC   AAP20245;
XX
DT   25-MAR-2003  (revised)
DT   01-JUL-1993  (first entry)
XX
DE   N-terminal human beta-interferon peptide.
XX
KW   Hapten; hapten-carrier binding agent; antigen.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .8
FT                   /note= "peptide I, reacted with peptide II"
FT   Peptide         9. .13
FT                   /note= "peptide II reacted with peptide I"
XX
PN   JP57163318-A.
XX
PD   07-OCT-1982.
XX
PF   31-MAR-1981;   81JP-00047841.
XX
PR   31-MAR-1981;   81JP-00047841.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
DR   WPI; 1982-98272E/46.
XX
PT   Human beta-interferon antigen prepn. - by reacting N-terminal peptide of
PT   interferon with carrier in presence of hapten-carrier binder.
XX
PS   Claim 1; Page 1; 23pp; Japanese.
XX
CC   The peptide comprises the N-terminal peptide of human beta interferon
CC   (peptide II) linked to peptide I (or fragments truncated from the N
CC   terminal). The complete peptide is used as a hapten with a carrier in the
CC   presence of a hapten-carrier binding agent to provide a peptide-carrier
CC   complex useful in obtaining human beta interferon antibody of high
CC   specificity. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25
CC   -MAR-2003 to correct PA field.)
XX
SQ   Sequence 13 AA;

   AAP20245  Length: 13  May 13, 2004 16:42  Type: P  Check: 7186  ..

       1  MSYNLLGFLQ RSS

!!AA_SEQUENCE 1.0
ID   AAP20383 standard; peptide; 27 AA.
XX
AC   AAP20383;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Protected heptacosapeptide.
XX
KW   Secretin; pancreatic juices; gastric juices.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "p-amethoxybenzyloxycarbonyl-protected"
FT   Modified-site   12
FT                   /note= "NG-mesitylene sulphonylarginine"
FT   Modified-site   14
FT                   /note= "NG-mesitylene sulphonylarginine"
FT   Modified-site   18
FT                   /note= "NG-mesitylene sulphonylarginine"
FT   Modified-site   21
FT                   /note= "NG-mesitylene sulphonylarginine"
XX
PN   JP56158747-A.
XX
PD   07-DEC-1981.
XX
PF   12-MAY-1980;   80JP-00063174.
XX
PR   12-MAY-1980;   80JP-00063174.
XX
PA   (NNSH ) NIPPON SHINYAKU CO LTD.
XX
DR   WPI; 1982-04870E/03.
XX
PT   Para:methoxy:benzyloxy:carbonyl protected heptacosa:peptide - is
PT   intermediate for secretin, which e.g. stimulates pancreatic juices.
XX
PS   Claim 1; Page 1; 5pp; Japanese.
XX
CC   The sequence given is a heptacosapeptide which can be used as a precursor
CC   for secretin production. Secretin is a digestive tract enzyme which has
CC   physiological actions such as pancreatic juice secretion-stimulating
CC   action and gastric juice secretion-inhibiting action. The
CC   hetpacosapeptide can be converted to secretin by treating it with
CC   CF3SO3H. This yields large amounts of high purity secretin in a short
CC   time. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-
CC   2003 to correct PA field.)
XX
SQ   Sequence 27 AA;

   AAP20383  Length: 27  May 13, 2004 16:42  Type: P  Check: 9384  ..

       1  HSDGTFTSEL SRLRDSARLQ RLLQGLV

!!AA_SEQUENCE 1.0
ID   AAP20046 standard; peptide; 14 AA.
XX
AC   AAP20046;
XX
DT   25-MAR-2003  (revised)
DT   15-SEP-1992  (first entry)
XX
DE   Lactate-dehydrogenase isozyme C4 antigen.
XX
KW   Lactate-dehydrogenase; antigen; contraceptive; vaccine.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= may be absent
FT   Misc-difference 14
FT                   /label= absent, Leu, Leu-Ser or Leu-Ser-Arg
XX
PN   WO8204250-A.
XX
PD   09-DEC-1982.
XX
PF   26-MAY-1981;   81US-00267021.
XX
PR   26-MAY-1981;   81US-00267021.
PR   26-JUN-1981;   81US-00277623.
PR   06-JUL-1981;   81US-00280295.
PR   16-JUN-1982;   82US-00389040.
XX
PA   (NOUN ) UNIV NORTHWESTERN.
XX
PI   Goldberg E;
XX
DR   WPI; 1982-09284J/50.
XX
```

PT Antigenic peptide(s) used for mammalian fertility reducing vaccines - by
PT producing antibodies in oviduct fluids.
XX
PS Claim 1(h); Page 19; 22pp; English.
XX
CC The peptides correspond to sequences of lactate-dehydrogenase-C4 found in
CC mammalian sperm. They may be included in vaccines for reducing fertility.
CC (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to
CC correct PA field.)
XX
SQ Sequence 14 AA;

AAP20046 Length: 14 May 13, 2004 16:42 Type: P Check: 8113 ..

1 CEQLIQNLVP EDKX

!!AA_SEQUENCE 1.0
ID AAP20133 standard; peptide; 10 AA.
XX
AC AAP20133;
XX
DT 25-MAR-2003 (revised)
DT 25-NOV-1992 (first entry)
XX
DE Human lymphoblast interferon.
XX
KW Lymphoblast; interferon; immunostimulant; antitumor; virucide; ds.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "benzyl residue (Bzl) attached"
FT Modified-site 2
FT /note= "tertiary butyl residue (But) attached"
FT Modified-site 6
FT /note= "(Bzl) attached"
FT Modified-site 8
FT /note= "(Bzl) attached"
XX
PN EP51204-A.
XX
PD 12-MAY-1982.
XX
PF 30-OCT-1980; 80DE-03040824.
XX
PR 30-OCT-1980; 80DE-03040824.
XX
PA (THOM) THOMAE GMBH KARL.
XX
PI Jung G, Brueckner H, Swetly P, Bozler G;
XX
DR WPI; 1982-39606E/20.
XX
PT Human lymphoblast interferon deca:peptide and its hydrazide - prepd. by
PT solid-phase synthesis from the protected C-terminal glycine residue.
XX
PS Claim 1; Page 18; 28pp; German.
XX
CC This decapeptide (I) is a partially protected (see features for
CC protecting residues) hydrazide with a tertiary butyloxycarbonyl residue
CC at its C-terminal and an NH group present at its N-terminal, or an
CC unprotected hydrazide with an NH group at its N-terminal. It corresponds
CC to the N-terminal sequence of human lymphoblast interferon (hlI) and can
CC be used to replace hlI in therapy. (I) can be used for the production
CC ofCC antisera or antibodies against hlI. The decapeptide, its hydrazide,
CC and partially protected hydrazide are useful as intermediates for higher
CC lymphoblast interferon peptides or for hlI itself. The decapeptide is
CC prepared by solid-phase synthesis. See also EP-051205. (Updated on 25-MAR
CC -2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ Sequence 10 AA;

AAP20133 Length: 10 May 13, 2004 16:42 Type: P Check: 4238 ..

1 SDLPQTHSLG

!!AA_SEQUENCE 1.0
ID AAP20137 standard; peptide; 13 AA.
XX
AC AAP20137;
XX
DT 25-MAR-2003 (revised)
DT 16-DEC-1992 (first entry)
XX
DE Human fibroblast interferon peptide.
XX
KW Interferon; antitumor; virucide; immunostimulant; fibroblast.
XX
OS Synthetic.
XX
PN EP51205-A.
XX
PD 12-MAY-1982.
XX
PF 20-OCT-1981; 81EP-00108536.
XX
PR 30-OCT-1980; 80DE-03040825.
XX
PA (THOM) THOMAE GMBH KARL.
XX
PI Jung G, Brueckner H, Swetly P, Bozler G;
XX
DR WPI; 1982-39607E/20.
XX
PT Human fibroblast interferon tri:deca:peptide - prepd. by solid-phase
PT synthesis from the protected C-terminal serine residue.
XX
PS Claim 1; Page 18; 28pp; German.
XX
CC The peptide corresponds to the N-terminal sequence of human fibroblast
CC IFN and can be used instead of hfIFN in therapy. It can also be used as a
CC hapten for the production of immunogens. The peptide is also useful as an
CC intermediate for higher hfIFN peptides or for hfIFN itself. A
CC modofication of this peptide is also given where Arg-11 may be Arg(Tos).
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 13 AA;

AAP20137 Length: 13 May 13, 2004 16:42 Type: P Check: 7186 ..

1 MSYNLLGFLQ RSS

!!AA_SEQUENCE 1.0
ID AAP20070 standard; protein; 17 AA.
XX
AC AAP20070;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region c.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.

```
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 75; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 17 AA;

   AAP20070  Length: 17  May 13, 2004 16:42  Type: P  Check: 2005  ..

       1  ENYGGETQIQ RRQHTDV

!!AA_SEQUENCE 1.0
ID   AAP20086 standard; protein; 16 AA.
XX
AC   AAP20086;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region s.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 76; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 16 AA;

   AAP20086  Length: 16  May 13, 2004 16:42  Type: P  Check: 375  ..

       1  ENITSGFLGP LLVLQC

!!AA_SEQUENCE 1.0
ID   AAP20089 standard; protein; 30 AA.
XX
AC   AAP20089;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region v.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 76; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 30 AA;

   AAP20089  Length: 30  May 13, 2004 16:42  Type: P  Check: 5841  ..

       1  FPGSSTTSTG PCRTCMTTAQ GTSMYPSCCC

!!AA_SEQUENCE 1.0
ID   AAP20068 standard; peptide; 16 AA.
XX
AC   AAP20068;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region a.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
```

XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20069-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 16 AA;

AAP20068 Length: 16 May 13, 2004 16:42 Type: P Check: 581 ..

1 DPVTTTVENY GGETQI

!!AA_SEQUENCE 1.0
ID AAP20077 standard; protein; 6 AA.
XX
AC AAP20077;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region j.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 6 AA;

AAP20077 Length: 6 May 13, 2004 16:42 Type: P Check: 1605 ..

1 VCLGQN

!!AA_SEQUENCE 1.0
ID AAP20079 standard; protein; 16 AA.
XX
AC AAP20079;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region l.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 16 AA;

AAP20079 Length: 16 May 13, 2004 16:42 Type: P Check: 526 ..

1 LLVLLDYQGM LPVCPL

!!AA_SEQUENCE 1.0
ID AAP20088 standard; protein; 15 AA.
XX
AC AAP20088;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region u.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.

XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 76; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 15 AA;

AAP20088 Length: 15 May 13, 2004 16:42 Type: P Check: 9285 ..

1 LVLLDYQGML PVCPL

!!AA_SEQUENCE 1.0
ID AAP20072 standard; protein; 17 AA.
XX
AC AAP20072;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region e.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 17 AA;

AAP20072 Length: 17 May 13, 2004 16:42 Type: P Check: 1635 ..

1 MENITSGFLG PLLVLQA

!!AA_SEQUENCE 1.0
ID AAP20074 standard; protein; 16 AA.
XX
AC AAP20074;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region g.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 16 AA;

AAP20074 Length: 16 May 13, 2004 16:42 Type: P Check: 914 ..

1 LLYRILTIPQ SLDSWW

!!AA_SEQUENCE 1.0
ID AAP20073 standard; protein; 6 AA.
XX
AC AAP20073;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region f.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.

XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 6 AA;

AAP20073 Length: 6 May 13, 2004 16:42 Type: P Check: 1585 ..

1 LLVLQA

!!AA_SEQUENCE 1.0
ID AAP20078 standard; protein; 34 AA.
XX
AC AAP20078;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region k.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 75; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 34 AA;

AAP20078 Length: 34 May 13, 2004 16:42 Type: P Check: 6590 ..

1 CLGQNSQSPT SNHSPTSCPP TCPGYRWMCL RRFL

!!AA_SEQUENCE 1.0
ID AAP20094 standard; protein; 30 AA.
XX
AC AAP20094;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)
XX
DE Synthetic peptide specific antigenic determinant region tt.
XX
KW Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS Synthetic.
XX
PN EP44710-A.
XX
PD 27-JAN-1982.
XX
PF 17-JUL-1980; 80US-00169758.
XX
PR 17-JUL-1980; 80US-00169758.
PR 30-OCT-1980; 80US-00202431.
PR 27-MAR-1981; 81US-00248059.
XX
PA (SCRI) SCRIPPS CLINIC & RES FOUND.
PA (SCHR-) SCHRIPPS CLINIC RES.
XX
PI Lerner RA, Green N, Sutcliffe JG, Shinnick TM;
XX
DR WPI; 1982-08369E/05.
XX
PT Synthetic specific antigenic determinants - comprising peptides with
PT amino acid sequence determined from gene DNA sequence.
XX
PS Claim 14; Page 77; 93pp; English.
XX
CC The peptide is a synthetic peptide specific antigenic determinant region,
CC it is synthesised based on the sequence of a specific antigenic
CC determinant of a desired natural genome. It can be used in the prodn. of
CC antigens which can be used to produce vaccines, diagnostic or therapeutic
CC antibodies etc. The antigens produced are highly specific and free of
CC undesirable impurities. See also AAP20068-P20093. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 30 AA;

AAP20094 Length: 30 May 13, 2004 16:42 Type: P Check: 5841 ..

1 FPGSSTTSTG PCRTCMTTAQ GTSMYPSCCC

!!AA_SEQUENCE 1.0
ID AAP20085 standard; protein; 34 AA.
XX
AC AAP20085;
XX
DT 25-MAR-2003 (revised)
DT 01-DEC-1992 (first entry)

```
XX
DE   Synthetic peptide specific antigenic determinant region r.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 76; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 34 AA;

   AAP20085  Length: 34  May 13, 2004 16:42  Type: P  Check: 6488  ..

       1  CLGQNSQSPT SNHSPTSCPP TCPGYRWMCL RRFI

!!AA_SEQUENCE 1.0
ID   AAP20091 standard; protein; 13 AA.
XX
AC   AAP20091;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region x.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 76; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 13 AA;

   AAP20091  Length: 13  May 13, 2004 16:42  Type: P  Check: 7016  ..

       1  TTAQGTSMYP SCC

!!AA_SEQUENCE 1.0
ID   AAP20092 standard; protein; 16 AA.
XX
AC   AAP20092;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region y.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 76; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 16 AA;

   AAP20092  Length: 16  May 13, 2004 16:42  Type: P  Check: 581  ..

       1  DPVTTTVENY GGETQI

!!AA_SEQUENCE 1.0
ID   AAP20071 standard; protein; 41 AA.
XX
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```
AC   AAP20071;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region d.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 75; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 41 AA;

   AAP20071  Length: 41  May 13, 2004 16:42  Type: P  Check: 6698  ..

       1  TTSAGESADP VTTTVENYGG ETQIQRRQHT DVSFIMDRFV K

!!AA_SEQUENCE 1.0
ID   AAP20076 standard; protein; 15 AA.
XX
AC   AAP20076;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region i.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 75; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 15 AA;

   AAP20076  Length: 15  May 13, 2004 16:42  Type: P  Check: 9267  ..

       1  SLNFLGGWWV CLGQN

!!AA_SEQUENCE 1.0
ID   AAP20087 standard; protein; 14 AA.
XX
AC   AAP20087;
XX
DT   25-MAR-2003  (revised)
DT   01-DEC-1992  (first entry)
XX
DE   Synthetic peptide specific antigenic determinant region t.
XX
KW   Antigen; vaccine; diagnostic; therapeutic antibody.
XX
OS   Synthetic.
XX
PN   EP44710-A.
XX
PD   27-JAN-1982.
XX
PF   17-JUL-1980;   80US-00169758.
XX
PR   17-JUL-1980;   80US-00169758.
PR   30-OCT-1980;   80US-00202431.
PR   27-MAR-1981;   81US-00248059.
XX
PA   (SCRI ) SCRIPPS CLINIC & RES FOUND.
PA   (SCHR-) SCHRIPPS CLINIC RES.
XX
PI   Lerner RA,  Green N,  Sutcliffe JG,  Shinnick TM;
XX
DR   WPI; 1982-08369E/05.
XX
PT   Synthetic specific antigenic determinants - comprising peptides with
PT   amino acid sequence determined from gene DNA sequence.
XX
PS   Claim 14; Page 76; 93pp; English.
XX
CC   The peptide is a synthetic peptide specific antigenic determinant region,
CC   it is synthesised based on the sequence of a specific antigenic
CC   determinant of a desired natural genome. It can be used in the prodn. of
CC   antigens which can be used to produce vaccines, diagnostic or therapeutic
CC   antibodies etc. The antigens produced are highly specific and free of
CC   undesirable impurities. See also AAP20068-P20094. (Updated on 25-MAR-2003
CC   to correct PA field.)
XX
SQ   Sequence 14 AA;

   AAP20087  Length: 14  May 13, 2004 16:42  Type: P  Check: 8325  ..

       1  LTRILTIPQS LDSW
```

```
!!AA_SEQUENCE 1.0
ID   AAP20381 standard; protein; 8 AA.
XX
AC   AAP20381;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Protected insulin B-chain (2).
XX
KW   DNP; 2,4-dinitrophenyl; DPM; diphenylmethyl.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Boc-protected"
FT   Modified-site   5
FT                   /note= "DNP-protected"
FT   Modified-site   7
FT                   /note= "DPM-protected"
FT   Modified-site   8
FT                   /note= "Gly-OMe"
XX
PN   DD155321-A.
XX
PD   02-JUN-1982.
XX
PF   15-DEC-1980;   80DD-00226078.
XX
PR   15-DEC-1980;   80DD-00226078.
XX
PA   (AROL/) AROLD H.
XX
PI   Arold H,  Mueller A,  Schwuchow C;
XX
DR   WPI; 1982-83706E/40.
XX
PT   Prepn. of protected insulin B-chain octa:peptide - using di:nitro-phenyl
PT   gp. for histidine protection.
XX
PS   Example 8; Page 8; 11pp; German.
XX
CC   The cpd. is useful as intermediate for synthesis of insulin or its B
CC   chain. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 8 AA;

   AAP20381  Length: 8  May 13, 2004 16:42  Type: P  Check: 2653  ..

       1  FVNQHLCG

!!AA_SEQUENCE 1.0
ID   AAP20141 standard; peptide; 8 AA.
XX
AC   AAP20141;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Protected insulin B-chain (1).
XX
KW   Hydrazide; DNP; 2,4-dinitrophenyl; DPM; diphenylmethyl.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Nalpha-protected, removable by mild acid
FT                   hydrolysis"
FT   Modified-site   5
FT                   /note= "DNP-protected or His-H"
FT   Duplication     7
FT                   /note= "DPM-protected"
FT   Modified-site   8
FT                   /note= "alkylated (sic) or amidated"
XX
PN   DD155321-A.
XX
PD   02-JUN-1982.
XX
PF   15-DEC-1980;   80DD-00226078.
XX
PR   15-DEC-1980;   80DD-00226078.
XX
PA   (AROL/) AROLD H.
XX
PI   Arold H,  Mueller A,  Schwuchow C;
XX
DR   WPI; 1982-83706E/40.
XX
PT   Prepn. of protected insulin B-chain octa:peptide - using di:nitro-phenyl
PT   gp. for histidine protection.
XX
PS   Claim 1; Page 10; 11pp; German.
XX
CC   The cpd. is useful as intermediate for synthesis of insulin or its B
CC   chain. The DNP gp. provides temporary protection for the His side chain
CC   and is readily removed by hydrazinolysis, e.g. during conversion of the
CC   cpd. to the hydrazide. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 8 AA;

   AAP20141  Length: 8  May 13, 2004 16:42  Type: P  Check: 2653  ..

       1  FVNQHLCG

!!AA_SEQUENCE 1.0
ID   AAP20382 standard; protein; 8 AA.
XX
AC   AAP20382;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Protected insulin B-chain (3).
XX
KW   DNP; 2,4-dinitrophenyl; DPM; diphenylmethyl.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Boc-protected"
FT   Duplication     7
FT                   /note= "DPM-protected"
FT   Modified-site   8
FT                   /note= "amidated"
XX
PN   DD155321-A.
XX
PD   02-JUN-1982.
XX
PF   15-DEC-1980;   80DD-00226078.
XX
PR   15-DEC-1980;   80DD-00226078.
XX
PA   (AROL/) AROLD H.
XX
PI   Arold H,  Mueller A,  Schwuchow C;
XX
DR   WPI; 1982-83706E/40.
XX
PT   Prepn. of protected insulin B-chain octa:peptide - using di:nitro-phenyl
PT   gp. for histidine protection.
```

XX
PS Example 9; Page 9; 11pp; German.
XX
CC The cpd. is useful as intermediate for synthesis of insulin or its B
CC chain. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ Sequence 8 AA;

AAP20382 Length: 8 May 13, 2004 16:42 Type: P Check: 2653 ..

1 FVNQHLCG

!!AA_SEQUENCE 1.0
ID AAP20036 standard; protein; 87 AA.
XX
AC AAP20036;
XX
DT 25-MAR-2003 (revised)
DT 22-JUL-1992 (first entry)
XX
DE Human proinsulin.
XX
KW Proinsulin.
XX
OS Homo sapiens.
XX
PN EP55942-A.
XX
PD 14-JUL-1982.
XX
PF 31-DEC-1981; 81EP-00306190.
XX
PR 02-JAN-1981; 81US-00222010.
PR 23-JUL-1981; 81US-00286070.
PR 02-JAN-1982; 82US-00222010.
PR 03-MAR-1982; 82US-00354287.
XX
PA (UYNY-) STATE UNIV NEW YORK.
XX
PI Inouye M, Nakamura K;
XX
DR WPI; 1982-59775E/29.
DR N-PSDB; AAN20041.
XX
PT Plasmid cloning vehicles - useful for transforming bacterial hosts to
PT produce eukaryotic polypeptide(s).
XX
PS Disclosure; Fig 27; 114pp; English.
XX
CC The sequence comprises human proinsulin. (Updated on 25-MAR-2003 to
CC correct PR field.)
XX
SQ Sequence 87 AA;

AAP20036 Length: 87 May 13, 2004 16:42 Type: P Check: 1023 ..

1 MFVNQHLCGS HLVEALYLVC GERGFFYTPK TRREAEDLQV GQVELGGGPG

51 AGSLQPLALE GSLQKRGIVE QCCTSICSLY QLENYCN

!!AA_SEQUENCE 1.0
ID AAP20034 standard; protein; 78 AA.
XX
AC AAP20034;
XX
DT 25-MAR-2003 (revised)
DT 22-JUL-1992 (first entry)
XX
DE E. coli lipoprotein.
XX
KW Lipoprotein.
XX
OS Escherichia coli.
XX
PN EP55942-A.
XX
PD 14-JUL-1982.
XX
PF 31-DEC-1981; 81EP-00306190.
XX
PR 02-JAN-1981; 81US-00222010.
PR 23-JUL-1981; 81US-00286070.
PR 02-JAN-1982; 82US-00222010.
PR 03-MAR-1982; 82US-00354287.
XX
PA (UYNY-) STATE UNIV NEW YORK.
XX
PI Inouye M, Nakamura K;
XX
DR WPI; 1982-59775E/29.
DR N-PSDB; AAN20039.
XX
PT Plasmid cloning vehicles - useful for transforming bacterial hosts to
PT produce eukaryotic polypeptide(s).
XX
PS Disclosure; Fig 1; 114pp; English.
XX
CC The sequence comprises the Escherichia coli lipoprotein. (Updated on 25-
CC MAR-2003 to correct PR field.)
XX
SQ Sequence 78 AA;

AAP20034 Length: 78 May 13, 2004 16:42 Type: P Check: 4298 ..

1 MKATKLVLGA VILGSTLLAG CSSNAKIDQL SSDVQTLNAK VDQLSNDVNA

51 MRSDVQAAKD DAARANQRLD NMATKYRK

!!AA_SEQUENCE 1.0
ID AAP20035 standard; protein; 78 AA.
XX
AC AAP20035;
XX
DT 25-MAR-2003 (revised)
DT 22-JUL-1992 (first entry)
XX
DE E. coli lipoprotein.
XX
KW Lipoprotein.
XX
OS Escherichia coli.
XX
PN EP55942-A.
XX
PD 14-JUL-1982.
XX
PF 31-DEC-1981; 81EP-00306190.
XX
PR 02-JAN-1981; 81US-00222010.
PR 23-JUL-1981; 81US-00286070.
PR 02-JAN-1982; 82US-00222010.
PR 03-MAR-1982; 82US-00354287.
XX
PA (UYNY-) STATE UNIV NEW YORK.
XX
PI Inouye M, Nakamura K;
XX
DR WPI; 1982-59775E/29.
DR N-PSDB; AAN20040.
XX
PT Plasmid cloning vehicles - useful for transforming bacterial hosts to
PT produce eukaryotic polypeptide(s).
XX
PS Disclosure; Fig 2; 114pp; English.
XX
CC The sequence encodes the Escherichia coli lipoprotein. (Updated on 25-MAR

```
CC   -2003 to correct PR field.)
XX
SQ   Sequence 78 AA;

   AAP20035  Length: 78  May 13, 2004 16:42  Type: P  Check: 4298  ..

       1  MKATKLVLGA VILGSTLLAG CSSNAKIDQL SSDVQTLNAK VDQLSNDVNA

      51  MRSDVQAAKD DAARANQRLD NMATKYRK

!!AA_SEQUENCE 1.0
ID   AAP20025 standard; protein; 166 AA.
XX
AC   AAP20025;
XX
DT   25-MAR-2003  (revised)
DT   03-AUG-1992  (first entry)
XX
DE   Sequence encoded by human fibroblast interferon gene.
XX
KW   Bacillus subtilis; expression vector; heterologous protein; interferon;
KW   operator; promoter.
XX
OS   Homo sapiens.
XX
PN   EP63494-A.
XX
PD   27-OCT-1982.
XX
PF   20-APR-1982;   82EP-00302027.
XX
PR   10-MAR-1980;   80US-00128537.
PR   31-DEC-1980;   80US-00221800.
PR   20-APR-1981;   81US-00255804.
PR   26-JAN-1983;   83US-00461249.
PR   25-MAR-1986;   86US-00843946.
XX
PA   (CETU ) CETUS CORP.
PA   (CETU ) CETUS CORP.
XX
PI   Chang S;
XX
DR   WPI; 1982-93141E/44.
DR   N-PSDB; AAN20023.
XX
PT   Protein prodn. from transformed Bacillus subtilis cells - contg.
PT   heterologous gene controlled by regulatory signals from other source.
XX
PS   Example; Fig 1; 19pp; English.
XX
CC   The inventors claim a method for protein prodn. from transformed Bacillus
CC   subtilis cells. Pref. the gene is controlled by B. licheniformis beta-
CC   lactamase regulatory signals, and the protein is esp. a eukaryotic
CC   protein, specifically human fibroblast interferon (HFI). (Updated on 25-
CC   MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 166 AA;

  AAP20025  Length: 166  May 13, 2004 16:42  Type: P  Check: 7015  ..

       1  MSYTLLGFLQ RSSNFQCQKL LWQWNGRLEY CLKDRMNFDI PEEIKQLQQF

      51  QKEDAALTIY EMLQNIFAIF RQDSSSTGWN ETIVENLLAN VYHQITHLKT

     101  VLEEKLEKED FTRGKLMSSL HLKRYYGRIL HYLKAKEYSH CAWTIVRVEI

     151  LRNFYFINRL TGYLRN

!!AA_SEQUENCE 1.0
ID   AAP20031 standard; protein; 72 AA.
XX
AC   AAP20031;
XX
DT   25-MAR-2003  (revised)
DT   03-AUG-1992  (first entry)
XX
DE   Sequence encoded by the B. licheniformis penP (penicillinase (beta-
DE   lactamase)) gene.
XX
KW   Bacillus subtilis; expression vector; heterologous protein; interferon;
KW   operator; promoter.
XX
OS   Bacillus licheniformis.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .34
FT                   /label= signal
XX
PN   EP63494-A.
XX
PD   27-OCT-1982.
XX
PF   20-APR-1982;   82EP-00302027.
XX
PR   10-MAR-1980;   80US-00128537.
PR   31-DEC-1980;   80US-00221800.
PR   20-APR-1981;   81US-00255804.
PR   26-JAN-1983;   83US-00461249.
PR   25-MAR-1986;   86US-00843946.
XX
PA   (CETU ) CETUS CORP.
PA   (CETU ) CETUS CORP.
XX
PI   Chang S;
XX
DR   WPI; 1982-93141E/44.
DR   N-PSDB; AAN20031.
XX
PT   Protein prodn. from transformed Bacillus subtilis cells - contg.
PT   heterologous gene controlled by regulatory signals from other source.
XX
PS   Example; Fig 2; 19pp; English.
XX
CC   The inventors claim a method for protein prodn. from transformed Bacillus
CC   subtilis cells. Pref. the gene is controlled by B. licheniformis beta-
CC   lactamase regulatory signals, and the protein is esp. a eukaryotic
CC   protein, specifically human fibroblast interferon (HFI). (Updated on 25-
CC   MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 72 AA;

   AAP20031  Length: 72  May 13, 2004 16:42  Type: P  Check: 667  ..

       1  MKLWFSTLKL KKAAAVLLFS CVALAGCANN QTNASQPAEK NEKTEMKDDF

      51  AKLEEQFDAK LGIFALDTGT NR

!!AA_SEQUENCE 1.0
ID   AAP20057 standard; protein; 32 AA.
XX
AC   AAP20057;
XX
DT   28-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Insect bacteriolytic protein P9-A.
XX
KW   Insect; antibacterial; antibiotic; P9-A protein; P9-B protein.
XX
OS   Hyalophora cecropia; (giant silk moth).
XX
PN   US4355104-A.
XX
```

PD 19-OCT-1982.
XX
PF 17-JUN-1980; 80US-00160393.
XX
PR 17-JUN-1980; 80US-00160393.
PR 02-AUG-1982; 82US-00404119.
XX
PA (KABI) KABIGEN AB.
XX
PI Hultmark D, Steiner H, Rasmuson T, Boman HG;
XX
DR WPI; 1982-94975E/44.
XX
PT Purified low mol. wt. bacteriolytic proteins - obtd. from insects after
PT immunisation against Escherichia coli.
XX
PS Claim 6; Col 9; 8pp; English.
XX
CC This is a non-lysozyme highly active bacteriolytic protein which is
CC thermostable and has a relatively low mol.wt. The protein may be produced
CC by immunizing a giant silk moth against E. coli and recovering the
CC protein from the insect. The protein is useful for extracting proteins
CC from recombinant bacteria and as a pharmaceutical. The protein is
CC especially active against streptomycin- and penicillin-resistant strains
CC of E. coli and other Gram-neg. strains. The protein has a dimer mol.wt.
CC within 20% of 3564 daltons. See also AAP20056. (Updated on 25-MAR-2003 to
CC correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
CC on 28-OCT-2003 to standardise OS field)
XX
SQ Sequence 32 AA;

AAP20057 Length: 32 May 13, 2004 16:42 Type: P Check: 9433 ..

1 KWKLFKKIEK VGQNIRDGII KAGPAVAVGP AT

!!AA_SEQUENCE 1.0
ID AAP20328 standard; peptide; 30 AA.
XX
AC AAP20328;
XX
DT 25-MAR-2003 (revised)
DT 19-AUG-1992 (first entry)
XX
DE Sequence of pig pancreatic peptide GRPP which inhibits gastric acid
DE secretion.
XX
KW Triacontapeptide; pancreas; gastric secretion inhibitor; GRPP;
KW ulcer therapy.
XX
OS Pig.
XX
PN EP47149-A.
XX
PD 10-MAR-1982.
XX
PF 27-AUG-1981; 81EP-00303944.
XX
PR 28-AUG-1980; 80DK-00003663.
PR 27-AUG-1981; 81DK-00003801.
XX
PA (NOVO) NOVO IND AS.
XX
PI Moody AJ, Thim L, Jorgensen KD;
XX
DR WPI; 1982-20220E/11.
XX
PT Triacontapeptide extracted from pig pancreas - useful as gastric
PT secretion inhibitor for treating ulcers.
XX
PS Claim 1; Page 21; 25pp; English.
XX
CC The peptide of the invention is designated GRPP. It is obtd. by extn.
CC from porcine pancreas. Pref. the pancreas is first extd. with water plus
CC an immiscible solvent, under conditions for insulin recovery. It is an
CC inhibitor of prostaglandin-stimulated gastric acid secretion and so is
CC useful for treating gastroduodenal ulcers. The dose is pref. 10-50mcg/kg.
CC It can be given parenterally, nasally, rectally or orally. Repeated
CC subcutaneous doses of up to 16 mcg/kg to cats caused no adverse effects.
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 30 AA;

AAP20328 Length: 30 May 13, 2004 16:42 Type: P Check: 5052 ..

1 RSLQNTEEKS RSFPAPQTDP LDDPDQMTED

!!AA_SEQUENCE 1.0
ID AAP20316 standard; protein; 30 AA.
XX
AC AAP20316;
XX
DT 25-MAR-2003 (revised)
DT 30-NOV-1992 (first entry)
XX
DE Insulin B-chain derivative.
XX
KW des-B 30-insulin; daibetes mellitus; reagent.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 30
FT /note= ">5C amino acid or derivative"
XX
PN JP57050948-A.
XX
PD 25-MAR-1982.
XX
PF 12-SEP-1980; 80JP-00127458.
XX
PR 12-SEP-1980; 80JP-00127458.
XX
PA (SHIO) SHIONOGI & CO LTD.
XX
DR WPI; 1982-36022E/18.
XX
PT Insulin-related derivs. - useful for diabetes mellitus treatment and as
PT test reagents.
XX
PS Claim 1; Page 1; 6pp; Japanese.
XX
CC The sequence given is an analogue of the B-chain of human insulin in
CC which the 30th amino acid has been replaced by another amino acid
CC comprising at least 5 carbon atoms. This des-B 30-insulin was derived by
CC action of a protease which can cleave the carboxyl side of an amino acid
CC residue. This insulin analogue is useful for treating diabetes mellitus,
CC partic. insulin-resistant diabetes mellitus. It is useful as reagents in
CC various tests concerning insulin. (Updated on 25-MAR-2003 to correct PR
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 30 AA;

AAP20316 Length: 30 May 13, 2004 16:42 Type: P Check: 5845 ..

1 FVNQHLCGSH LVEALYLVCG ERGFFYTPKX

!!AA_SEQUENCE 1.0
ID AAP20255 standard; peptide; 34 AA.
XX
AC AAP20255;
XX
DT 27-NOV-1992 (first entry)
XX
DE HCG(112-145).
XX
KW Sex hormone; pregnancy; antibody; placenta; antigen.

XX
OS Homo sapiens.
XX
PN JP57139050-A.
XX
PD 27-AUG-1982.
XX
PF 20-FEB-1981; 81JP-00024629.
XX
PR 20-FEB-1981; 81JP-00024629.
XX
PA (TOXN) TOYO JOZO KK.
XX
DR WPI; 1982-84527E/40.
XX
PT Human chorionic gonadotropin C-terminal fragment (hCg 112-145) - useful
PT in preparing antibodies for HCG-determining systems, i.e. for pregnancy
PT testing etc.
XX
PS Claim 1; Page 1; 7pp; Japanese.
XX
CC This peptide is the human chorionic gonadotropin C-terminal fragment. It
CC is a sex hormone which is secreted from placenta during pregnancy and
CC plays an important role in maintenance of pregnancy. Antibodies obtained
CC using this peptide as antigen have immuno cross reactivity with HCG. The
CC peptide is thus useful as antibody-preparing reagent for HCG-determinig
CC system
XX
SQ Sequence 34 AA;

AAP20255 Length: 34 May 13, 2004 16:42 Type: P Check: 6731 ..

1 DPRFQDSSSS KAPPPSLPSP SRLPGPSDTP ILPQ

!!AA_SEQUENCE 1.0
ID AAP20002 standard; protein; 60 AA.
XX
AC AAP20002;
XX
DT 25-MAR-2003 (revised)
DT 17-DEC-1992 (first entry)
XX
DE Human proinsulin analog chimeric gene consisiting of A, B and C chains.
XX
KW Insulin; hormone; chimeric protein; chimeric gene; fusion protein; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 1. .30
FT /label= proinsulin B chain
FT Misc-difference 31. .36
FT /label= proinsulin C chain
FT Misc-difference 37. .57
FT /label= proinsulin A chain
XX
PN EP55945-A.
XX
PD 14-JUL-1982.
XX
PF 02-JAN-1981; 81US-00222044.
XX
PR 02-JAN-1981; 81US-00222044.
XX
PA (GETH) GENENTECH INC.
PA (GETH) GENENTECH INC.
XX
PI Goeddel DV, Kleid DG, Itakura K;
XX
DR WPI; 1982-59776E/29.
DR P-PSDB; AAP20002.
XX
PT Human pro:insulin for conversion to insulin - prepd. by microbial
PT expression of chimeric gene.
XX
PS Disclosure; Fig 5; 47pp; English.
XX
CC This sequence encodes segements of a gene for expression of an analog of
CC human proinsulin differing from human proinsulin in the amino acid
CC sequence of the C bridging chain. This chimeric protein expressed in
CC Escherichia coli. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 60 AA;

AAP20002 Length: 60 May 13, 2004 16:42 Type: P Check: 7527 ..

1 MFVNQHLCGS HLVEALYLVC GERGFFYTPK TRRGSKLGIV EQCCTSICSL

51 YQLENYCNXX

!!AA_SEQUENCE 1.0
ID AAP20043 standard; protein; 15 AA.
XX
AC AAP20043;
XX
DT 25-MAR-2003 (revised)
DT 27-NOV-1992 (first entry)
XX
DE Hapten related to human interferon.
XX
KW Hapten; interferon; antitumor; immunostimulant; virucide; antigen;
KW monoclonal antibody.
XX
OS Synthetic.
XX
PN FR2503145-A.
XX
PD 08-OCT-1982.
XX
PF 31-MAR-1981; 81JP-00047840.
XX
PR 31-MAR-1981; 81JP-00047840.
PR 31-MAR-1981; 82JP-00049859.
PR 01-APR-1981; 82JP-00049858.
PR 30-JUN-1981; 81JP-00102731.
PR 24-AUG-1981; 81JP-00133124.
PR 24-AUG-1981; 81JP-00133127.
PR 24-AUG-1981; 81JP-00133128.
PR 24-AUG-1981; 81JP-00133129.
XX
PA (SAKA) OTSUKA PHARM CO LTD.
XX
PI Shimizu F, Ohmoto Y, Imagawa K;
XX
DR WPI; 1982-97864E/46.
XX
PT Peptide(s) or hapten(s) related to human interferon - are combined with
PT carriers using fixation agents and used as antigens to induce human
PT interferon antibody prodn. in animals.
XX
PS Claim 1; Page 135; 151pp; French.
XX
CC To the left of AA 9 (Glu), the sequence is optionally TNLQ or SLSTNLQ.
CC This hapten may be used in the production of monoclonal antibodies
CC against human IFN. The peptide may be used to produce antigens, which are
CC used to produce, purify and separate human IFN-alpha, especially
CC lymphoblastoid IFN, and IFN-beta. See also AAP20042 and AAP20044.
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 15 AA;

AAP20043 Length: 15 May 13, 2004 16:42 Type: P Check: 9318 ..

1 YSLSTNLQES LRSKE

!!AA_SEQUENCE 1.0

```
ID   AAP20042 standard; peptide; 21 AA.
XX
AC   AAP20042;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Hapten related to human interferon.
XX
KW   Hapten; interferon; antitumor; immunostimulant; virucide; antigen;
KW   monoclonal antibody.
XX
OS   Synthetic.
XX
PN   FR2503145-A.
XX
PD   08-OCT-1982.
XX
PF   31-MAR-1981;   81JP-00047840.
XX
PR   31-MAR-1981;   81JP-00047840.
PR   31-MAR-1981;   82JP-00049859.
PR   01-APR-1981;   82JP-00049858.
PR   30-JUN-1981;   81JP-00102731.
PR   24-AUG-1981;   81JP-00133124.
PR   24-AUG-1981;   81JP-00133127.
PR   24-AUG-1981;   81JP-00133128.
PR   24-AUG-1981;   81JP-00133129.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
PI   Shimizu F,  Ohmoto Y,  Imagawa K;
XX
DR   WPI; 1982-97864E/46.
XX
PT   Peptide(s) or hapten(s) related to human interferon - are combined with
PT   carriers using fixation agents and used as antigens to induce human
PT   interferon antibody prodn. in animals.
XX
PS   Claim 1; Page 135; 151pp; French.
XX
CC   To the left of AA 16 (Leu), the sequence is optionally THSLGNRRA or
CC   SDLPQTHSLGNRRA. This hapten may be used in the production of monoclonal
CC   antibodies against human IFN. The peptide may be used to produce
CC   antigens, which are used to produce, purify and separate human IFN-alpha,
CC   especially lymphoblastoid IFN, and IFN-beta. See also AAP20043 and
CC   AAP20044. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 21 AA;

   AAP20042  Length: 21  May 13, 2004 16:42  Type: P  Check: 7496  ..

       1  YSDLPQTHSL GNRRALILLA Q

!!AA_SEQUENCE 1.0
ID   AAP20044 standard; protein; 13 AA.
XX
AC   AAP20044;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Hapten related to human interferon.
XX
KW   Hapten; interferon; antitumor; immunostimulant; virucide; antigen;
KW   monoclonal antibody.
XX
OS   Synthetic.
XX
PN   FR2503145-A.
XX
PD   08-OCT-1982.
XX
PF   31-MAR-1981;   81JP-00047840.
XX
PR   31-MAR-1981;   81JP-00047840.
PR   31-MAR-1981;   82JP-00049859.
PR   01-APR-1981;   82JP-00049858.
PR   30-JUN-1981;   81JP-00102731.
PR   24-AUG-1981;   81JP-00133124.
PR   24-AUG-1981;   81JP-00133127.
PR   24-AUG-1981;   81JP-00133128.
PR   24-AUG-1981;   81JP-00133129.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
PI   Shimizu F,  Ohmoto Y,  Imagawa K;
XX
DR   WPI; 1982-97864E/46.
XX
PT   Peptide(s) or hapten(s) related to human interferon - are combined with
PT   carriers using fixation agents and used as antigens to induce human
PT   interferon antibody prodn. in animals.
XX
PS   Claim 1; Page 135; 151pp; French.
XX
CC   To the left of AA 9 (Leu), the sequence is optionally LGF or YNLLGF. This
CC   hapten may be used in the production of monoclonal antibodies against
CC   human IFN. The peptide may be used to produce antigens, which are used to
CC   produce, purify and separate human IFN-alpha, especially lymphoblastoid
CC   IFN, and IFN-beta. See also AAP20042 and AAP20043. (Updated on 25-MAR-
CC   2003 to correct PA field.)
XX
SQ   Sequence 13 AA;

   AAP20044  Length: 13  May 13, 2004 16:42  Type: P  Check: 7186  ..

       1  MSYNLLGFLQ RSS

!!AA_SEQUENCE 1.0
ID   AAP20486 standard; peptide; 13 AA.
XX
AC   AAP20486;
XX
DT   25-MAR-2003  (revised)
DT   01-JUL-1993  (first entry)
XX
DE   N-terminal human beta interferon peptide.
XX
KW   Antigen; carrier; hapten; hapten-carrier binding agent.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .8
FT                   /note= "peptide I, reacted with peptide II"
FT   Peptide         9. .13
FT                   /note= "peptide II reacted with peptide I"
XX
PN   JP57163319-A.
XX
PD   07-OCT-1982.
XX
PF   31-MAR-1981;   81JP-00047842.
XX
PR   31-MAR-1981;   81JP-00047842.
XX
PA   (SAKA ) OTSUKA PHARM CO LTD.
XX
DR   WPI; 1982-98273E/46.
XX
PT   Prodn. of antibody against human beta-interferon - by admin. of antigen
PT   comprising complex of N-terminal peptide of the interferon and carrier to
PT   mammal.
XX
PS   Claim 1; Page 1; 23pp; Japanese.
```

XX
CC The peptide comprises the N-terminal peptide of human beta interferon
CC (peptide II) linked to peptide I (or fragments truncated from the N
CC terminal). The complete peptide is used as a hapten with a carrier in the
CC presence of a hapten-carrier binding agent to provide a peptide-carrier
CC complex useful in obtaining human beta interferon antibody of high
CC specificity. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25
CC -MAR-2003 to correct PA field.)
XX
SQ Sequence 13 AA;

AAP20486 Length: 13 May 13, 2004 16:42 Type: P Check: 7186 ..

1 MSYNLLGFLQ RSS

!!AA_SEQUENCE 1.0
ID AAP20114 standard; protein; 166 AA.
XX
AC AAP20114;
XX
DT 25-MAR-2003 (revised)
DT 21-SEP-1992 (first entry)
XX
DE Human interferon-alpha-2.
XX
KW Interferon-alpha-2.
XX
OS Synthetic.
XX
PN EP62971-A.
XX
PD 20-OCT-1982.
XX
PF 15-MAR-1982; 82EP-00301309.
XX
PR 27-MAR-1981; 81GB-00009678.
PR 30-MAR-1981; 81GB-00009919.
PR 22-APR-1981; 81GB-00012446.
PR 07-SEP-1981; 81GB-00026979.
XX
PA (ICIL) IMPERIAL CHEM IND PLC.
PA (UYLE-) UNIV OF LEICESTER.
PA (UNLO) UNIVERSITY OF LONDON.
XX
PI Atherton KT, Demaeyer E, Edge MD, Markham AF, Meacock PA;
PI Windass JD;
XX
DR WPI; 1982-90772E/43.
DR N-PSDB; AAN20109.
XX
PT Genetically modified microorganisms - capable of expressing as metabolite
PT a cpd. having interferon activity.
XX
PS Disclosure; Fig 2; 70pp; English.
XX
CC Interferon may be expressed from a synthetic gene and may be used as a
CC virucide and antitumor agent or as an immunostimulant. (Updated on 25-MAR
CC -2003 to correct PA field.)
XX
SQ Sequence 166 AA;

AAP20114 Length: 166 May 13, 2004 16:42 Type: P Check: 7780 ..

1 MCDLPQTHSL GSRRTLMLLA QMRRISLFSC LKDRHDFGFP QEEFGNQFQK

51 AETIPVLHEM IQQIFNLFST KDSSAAWDET LLDKFYTELY QQLNDLEACV

101 IQGVGVTETP LMKEDSILAV RKYFQRITLY LKEKKYSPCA WEVVRAEIMR

151 SFSLSTNLQE SLRSKE

!!AA_SEQUENCE 1.0
ID AAP20113 standard; protein; 167 AA.
XX
AC AAP20113;
XX
DT 25-MAR-2003 (revised)
DT 21-SEP-1992 (first entry)
XX
DE Human interferon-alpha-1.
XX
KW Interferon-alpha-1.
XX
OS Synthetic.
XX
PN EP62971-A.
XX
PD 20-OCT-1982.
XX
PF 15-MAR-1982; 82EP-00301309.
XX
PR 27-MAR-1981; 81GB-00009678.
PR 30-MAR-1981; 81GB-00009919.
PR 22-APR-1981; 81GB-00012446.
PR 07-SEP-1981; 81GB-00026979.
XX
PA (ICIL) IMPERIAL CHEM IND PLC.
PA (UYLE-) UNIV OF LEICESTER.
PA (UNLO) UNIVERSITY OF LONDON.
XX
PI Atherton KT, Demaeyer E, Edge MD, Markham AF, Meacock PA;
PI Windass JD;
XX
DR WPI; 1982-90772E/43.
DR N-PSDB; AAN20108.
XX
PT Genetically modified microorganisms - capable of expressing as metabolite
PT a cpd. having interferon activity.
XX
PS Disclosure; Fig 1; 70pp; English.
XX
CC Interferon may be expressed from a synthetic gene and may be used as a
CC virucide and antitumor agent or as an immunostimulant. (Updated on 25-MAR
CC -2003 to correct PA field.)
XX
SQ Sequence 167 AA;

AAP20113 Length: 167 May 13, 2004 16:42 Type: P Check: 591 ..

1 MCDLPETHSL DNRRTLMLLA QMSRISPSSC LMDRHDFGFP QEEFDGNQFQ

51 KAPAISVLHE LIQQIFNLFT TKDSSAAWDE DLLDKFCTEL YQQLNDLEAC

101 VMQEERVGET PLMNADSILA VKKYFRRITL YLTEKKYSPC AWEVVRAEIM

151 RSLSLSTNLQ ERLRRKE

!!AA_SEQUENCE 1.0
ID AAP20219 standard; protein; 33 AA.
XX
AC AAP20219;
XX
DT 25-MAR-2003 (revised)
DT 21-SEP-1992 (first entry)
XX
DE Partial sequence encoding Namalwa cell interferon.
XX
KW Interferon.
XX
OS Homo sapiens.
XX
PN EP62971-A.
XX
PD 20-OCT-1982.
XX
PF 15-MAR-1982; 82EP-00301309.

XX
PR 27-MAR-1981; 81GB-00009678.
PR 30-MAR-1981; 81GB-00009919.
PR 22-APR-1981; 81GB-00012446.
PR 07-SEP-1981; 81GB-00026979.
XX
PA (ICIL) IMPERIAL CHEM IND PLC.
PA (UYLE-) UNIV OF LEICESTER.
PA (UNLO) UNIVERSITY OF LONDON.
XX
PI Atherton KT, Demaeyer E, Edge MD, Markham AF, Meacock PA;
PI Windass JD;
XX
DR WPI; 1982-90772E/43.
DR N-PSDB; AAN20111.
XX
PT Genetically modified microorganisms - capable of expressing as metabolite
PT a cpd. having interferon activity.
XX
PS Disclosure; Fig 16; 70pp; English.
XX
CC The partial sequence encoding interferon expressed by Namalwa cells is
CC presented. Interferon may be used as a virucide and antitumor agent or as
CC an immunostimulant. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 33 AA;

AAP20219 Length: 33 May 13, 2004 16:42 Type: P Check: 2442 ..

1 MLTVLPVLSF HDINQCPAVI TLGRCAHDAM TVS

!!AA_SEQUENCE 1.0
ID AAP20038 standard; protein; 380 AA.
XX
AC AAP20038;
XX
DT 16-DEC-1992 (first entry)
XX
DE Pre-prorennin-A protein sequence.
XX
KW Pre-pro-rennin; rennin; prorennin; enzyme; EC-3.4.23.4; chymosin;
KW protease; milk-clotting enzyme; ss.
XX
OS Bos taurus.
XX
PN GB2091271-A.
XX
PD 28-JUL-1982.
XX
PF 15-JAN-1982; 82GB-00001120.
XX
PR 16-JAN-1981; 81US-00225717.
PR 01-DEC-1981; 81US-00325481.
XX
PA (COLB) COLLABORATIVE RES INC.
XX
PI Alford BL, Mao J, Moir DT;
XX
DR WPI; 1982-62028E/30.
DR P-PSDB; AAP20038.
XX
PT Transformed cells producing rennin and its precursors - contg.
PT appropriate recombinant DNA material.
XX
PS Disclosure; Table 1; 39pp; English.
XX
CC DNA sequences either side of the protein sequence can be removed and are
CC not essential to use of the gene in expression. The protein may be
CC expressed in E. coli using plasmid pcGE21. The resulting expressed
CC enzyume is a well known milk-clotting enzyme used in cheese-making
XX
SQ Sequence 380 AA;

AAP20038 Length: 380 May 13, 2004 16:42 Type: P Check: 1119 ..

1 RCLVVLLAVF ALSQGAEITR IPLYKGKSLR KALKEHGLLE DFLQKQQYGI

51 SSKYSGFGEV ASVPLTNYLD SQYFGKIYLG TPPQEFTVLF DTGSSDFWVP

101 SIYCKSNACK NHQRFDPRKS STFQNLGKPL SIHYGTGSMQ GILGYDTVTV

151 SNIVDIQQTV GLSTQEPGDV FNYAEFDGIL GMAYPSLASE YSIPVFDNMM

201 NRHLVAQDLF SVYMDRNGQE SMLTLGAIDP SYYTGSLHWV PVTVQQYWQF

251 TVDSVTISGV VVACEGGCQA ILDTGTSKLV GPSSDILNIQ QAIGATQNQY

301 DEFDIDCDNL SYMPTVVFEI NGKMYPLTPS AYTSQDQGFC TSGFQSENHS

351 QKWILGDVFI REYYSVFDSA NNLVGLAKAI

!!AA_SEQUENCE 1.0
ID AAP20287 standard; peptide; 21 AA.
XX
AC AAP20287;
XX
DT 25-MAR-2003 (revised)
DT 14-DEC-1992 (first entry)
XX
DE Human fibroblast interferon peptide for antibody production.
XX
KW Interferon; antitumor; immunostimulant; virucide; antibody.
XX
OS Synthetic.
XX
PN US4341761-A.
XX
PD 27-JUL-1982.
XX
PF 25-JUL-1980; 80US-00172466.
XX
PR 25-JUL-1980; 80US-00172466.
PR 30-MAR-1982; 82US-00363743.
XX
PA (DUPO) DU PONT DE NEMOURS & CO E I.
XX
PI Ganfield DJ, Hunkapille MW, Knight E, Korant BD;
XX
DR WPI; 1982-68136E/32.
XX
PT Antibodies for human fibroblast interferon - raised by immunisation with
PT specific polypeptide sequences useful for assay and purificn.
XX
PS Claim 3; Page 9; 9pp; English.
XX
CC The peptide may be coupled to protein carriers such as rabbit albumin or
CC ovalbumin, and used for the production of antibodies. The resulting
CC antibodies are useful in the assay and purification of human fibroblast
CC IFN. By affinity chromatography they provide a purification factor of
CC 1000 and a yield of 50%. See also AAP20286 and AAP20288-90. (Updated on
CC 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA
CC field.)
XX
SQ Sequence 21 AA;

AAP20287 Length: 21 May 13, 2004 16:42 Type: P Check: 7847 ..

1 MSYNLLGFLQ RSSNFQHQKL L

!!AA_SEQUENCE 1.0
ID AAP20288 standard; peptide; 21 AA.
XX
AC AAP20288;
XX
DT 25-MAR-2003 (revised)
DT 14-DEC-1992 (first entry)

XX
DE Human fibroblast interferon peptide for antibody production.
XX
KW Interferon; antitumor; immunostimulant; virucide; antibody.
XX
OS Synthetic.
XX
PN US4341761-A.
XX
PD 27-JUL-1982.
XX
PF 25-JUL-1980; 80US-00172466.
XX
PR 25-JUL-1980; 80US-00172466.
PR 30-MAR-1982; 82US-00363743.
XX
PA (DUPO) DU PONT DE NEMOURS & CO E I.
XX
PI Ganfield DJ, Hunkapille MW, Knight E, Korant BD;
XX
DR WPI; 1982-68136E/32.
XX
PT Antibodies for human fibroblast interferon - raised by immunisation with
PT specific polypeptide sequences useful for assay and purificn.
XX
PS Claim 4; Page 9; 9pp; English.
XX
CC The peptide may be coupled to protein carriers such as rabbit albumin or
CC ovalbumin, and used for the production of antibodies. The resulting
CC antibodies are useful in the assay and purification of human fibroblast
CC IFN. By affinity chromatography they provide a purification factor of
CC 1000 and a yield of 50%. See also AAP20286, AAP20287 and AAP20289-90.
CC (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to
CC correct PA field.)
XX
SQ Sequence 21 AA;

AAP20288 Length: 21 May 13, 2004 16:42 Type: P Check: 7853 ..

1 SSYNLLGFLQ RSSNFQHQKL L

!!AA_SEQUENCE 1.0
ID AAP20290 standard; peptide; 21 AA.
XX
AC AAP20290;
XX
DT 25-MAR-2003 (revised)
DT 14-DEC-1992 (first entry)
XX
DE Human fibroblast interferon peptide for antibody production.
XX
KW Interferon; antitumor; immunostimulant; virucide; antibody.
XX
OS Synthetic.
XX
PN US4341761-A.
XX
PD 27-JUL-1982.
XX
PF 25-JUL-1980; 80US-00172466.
XX
PR 25-JUL-1980; 80US-00172466.
PR 30-MAR-1982; 82US-00363743.
XX
PA (DUPO) DU PONT DE NEMOURS & CO E I.
XX
PI Ganfield DJ, Hunkapille MW, Knight E, Korant BD;
XX
DR WPI; 1982-68136E/32.
XX
PT Antibodies for human fibroblast interferon - raised by immunisation with
PT specific polypeptide sequences useful for assay and purificn.
XX
PS Claim 6; Page 9; 9pp; English.
XX
CC The peptide may be coupled to protein carriers such as rabbit albumin or
CC ovalbumin, and used for the production of antibodies. The resulting
CC antibodies are useful in the assay and purification of human fibroblast
CC IFN. By affinity chromatography they provide a purification factor of
CC 1000 and a yield of 50%. See also AAP20286-89. (Updated on 25-MAR-2003 to
CC correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 21 AA;

AAP20290 Length: 21 May 13, 2004 16:42 Type: P Check: 7768 ..

1 SSYNLLGFLQ RSSNFQCQKL L

!!AA_SEQUENCE 1.0
ID AAP20289 standard; peptide; 21 AA.
XX
AC AAP20289;
XX
DT 25-MAR-2003 (revised)
DT 14-DEC-1992 (first entry)
XX
DE Human fibroblast interferon peptide for antibody production.
XX
KW Interferon; antitumor; immunostimulant; virucide; antibody.
XX
OS Synthetic.
XX
PN US4341761-A.
XX
PD 27-JUL-1982.
XX
PF 25-JUL-1980; 80US-00172466.
XX
PR 25-JUL-1980; 80US-00172466.
PR 30-MAR-1982; 82US-00363743.
XX
PA (DUPO) DU PONT DE NEMOURS & CO E I.
XX
PI Ganfield DJ, Hunkapille MW, Knight E, Korant BD;
XX
DR WPI; 1982-68136E/32.
XX
PT Antibodies for human fibroblast interferon - raised by immunisation with
PT specific polypeptide sequences useful for assay and purificn.
XX
PS Claim 5; Page 9; 9pp; English.
XX
CC The peptide may be coupled to protein carriers such as rabbit albumin or
CC ovalbumin, and used for the production of antibodies. The resulting
CC antibodies are useful in the assay and purification of human fibroblast
CC IFN. By affinity chromatography they provide a purification factor of
CC 1000 and a yield of 50%. See also AAP20286-88 and AAP20290. (Updated on
CC 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA
CC field.)
XX
SQ Sequence 21 AA;

AAP20289 Length: 21 May 13, 2004 16:42 Type: P Check: 7762 ..

1 MSYNLLGFLQ RSSNFQCQKL L

!!AA_SEQUENCE 1.0
ID AAP20286 standard; peptide; 21 AA.
XX
AC AAP20286;
XX
DT 25-MAR-2003 (revised)
DT 14-DEC-1992 (first entry)
XX
DE Human fibroblast interferon peptide for antibody production.
XX

```
KW   Interferon; antitumor; immunostimulant; virucide; antibody.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= Met or Ser
FT   Misc-difference 17
FT                   /label= His or Cys
XX
PN   US4341761-A.
XX
PD   27-JUL-1982.
XX
PF   25-JUL-1980;    80US-00172466.
XX
PR   25-JUL-1980;    80US-00172466.
PR   30-MAR-1982;    82US-00363743.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Ganfield DJ,  Hunkapille MW,  Knight E,  Korant BD;
XX
DR   WPI; 1982-68136E/32.
XX
PT   Antibodies for human fibroblast interferon - raised by immunisation with
PT   specific polypeptide sequences useful for assay and purificn.
XX
PS   Claim 1; Page 9; 9pp; English.
XX
CC   The peptide may be coupled to protein carriers such as rabbit albumin or
CC   ovalbumin, and used for the production of antibodies. The resulting
CC   antibodies are useful in the assay and purification of human fibroblast
CC   IFN. By affinity chromatography they provide a purification factor of
CC   1000 and a yield of 50%. See also AAP20287-90. (Updated on 25-MAR-2003 to
CC   correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 21 AA;

   AAP20286  Length: 21  May 13, 2004 16:42  Type: P  Check: 8130  ..

       1  XSYNLLGFLQ RSSNFQXQKL L

!!AA_SEQUENCE 1.0
ID   AAP20483 standard; peptide; 8 AA.
XX
AC   AAP20483;
XX
DT   25-MAR-2003  (revised)
DT   08-JAN-1993  (first entry)
XX
DE   De-amino-6-carba-oxytocin analogue.
XX
KW   Oxytocin; cyclic; selective natriuretic.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "opt. para-substd. by alkyl, ethoxy, NH2  or opt.
FT                   substd. amino; and has alpha-amino condensed with side
FT                   chain of amino acid at position 5 to give cyclic
FT                   molecule"
FT   Modified-site   5
FT                   /label= OTHER
FT                   /note= "S-carboxyethyl-homocysteine residue which forms
FT                   cyclic peptide with Phe(1)"
FT   Modified-site   8
FT                   /label= Gly-NH2
XX
PN   GB2078755-A.
XX
PD   13-JAN-1982.
XX
PF   18-JUN-1981;    81GB-00018815.
XX
PR   24-JUN-1980;    80CS-00004465.
XX
PA   (CESK ) CESKOSLOVENSKA AKADEMIE VED.
PA   (LEBL/) LEBL M.
XX
PI   Lebl M,  Jost K,  Machova A,  Hrbas P,  Skopkova J,  Slaninova J;
PI   Barth T;
XX
DR   WPI; 1982-02535E/02.
XX
PT   De-amino-6-carba-oxytocin analogues - with phenylalanine residue at 2
PT   position, useful as selective natriuretics.
XX
PS   Claim 1; Page 8; 9pp; English.
XX
CC   The omega-carboxy gp. of S-carboxyethyl-homocysteine at position 5
CC   condenses onto the Phe (or deriv.) at position 1 to give a cyclic peptide
CC   having mercapto-propionic acid as an analogue for the corresponding amino
CC   acid at position 1 of oxytocin. The cyclic peptide has lower uterotonic,
CC   galactogogic and pressor effects than oxytocin but retains its
CC   natriuretic action. In fact, the cpd. having a 4-(methyl or ethyl)
CC   phenylalanine residue has a natriuretic effect which is several times
CC   greater than that of oxytocin. (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 8 AA;

   AAP20483  Length: 8  May 13, 2004 16:42  Type: P  Check: 2791  ..

       1  FIQNXPLG

!!AA_SEQUENCE 1.0
ID   AAP20026 standard; protein; 187 AA.
XX
AC   AAP20026;
XX
DT   27-AUG-2003  (revised)
DT   25-MAR-2003  (revised)
DT   11-AUG-1992  (first entry)
XX
DE   Human fibroblast interferon.
XX
KW   Interferon; virucide; antitumor.
XX
OS   Escherichia coli.
OS   Bacillus subtilis.
OS   Saccharomyces cerevisiae.
XX
PN   EP48970-A.
XX
PD   07-APR-1982.
XX
PF   25-SEP-1980;    80US-00190799.
XX
PR   25-SEP-1980;    80US-00190799.
PR   11-AUG-1981;    81US-00291892.
XX
PA   (GETH ) GENENTECH INC.
PA   (GETH ) GENENTECH INC.
XX
PI   Crea R,  Goeddel DVN;
XX
DR   WPI; 1982-28974E/15.
DR   N-PSDB; AAN20031.
XX
PT   Microbially produced mature human fibroblast interferon - obtd. by using
PT   recombinant DNA coding for amino acid interferon sequences.
XX
PS   Disclosure; Fig 3; 40pp; English.
XX
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```
CC   DNA encoding human interferon is expressed in large amounts in E. coli,
CC   B. subtilis or S. cerevisiae and used as a virucide or antitumour agent.
CC   (Updated on 25-MAR-2003 to correct PA field.) (Updated on 27-AUG-2003 to
CC   correct OS field.)
XX
SQ   Sequence 187 AA;

  AAP20026  Length: 187  May 13, 2004 16:42  Type: P  Check: 1974  ..

       1  MTNKCLLQIA LLLCFSTTAL SMSYNLLGFL QRSSNFQCQK LLWQLNGRLE

      51  YCLKDRMNFD IPEEIKQLQQ FQKEDAALTI YEMLQNIFAI FRQDSSSTGW

     101  NETIVENLLA NVYHQINHLK TVLEEKLEKE DFTRGKLMSS LHLKRYYGRI

     151  LHYLKAKEYS HCAWTIVRVE ILRNFYFINR LTGYLRN

!!AA_SEQUENCE 1.0
ID   AAP20103 standard; protein; 188 AA.
XX
AC   AAP20103;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1992  (first entry)
XX
DE   Sequence encoded by leukocyte interferon LeIF A cDNA.
XX
KW   Viral infection; therapy; malignancy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   GB2079291-A.
XX
PD   20-JAN-1982.
XX
PF   01-JUL-1981;   81GB-00020279.
XX
PR   01-JUL-1980;   80US-00164986.
PR   08-SEP-1980;   80US-00184909.
PR   10-NOV-1980;   80US-00205578.
PR   21-APR-1981;   81US-00256204.
XX
PA   (HOFF ) HOFFMANN-LA ROCHE AG.
PA   (GETH ) GENENTECH INC.
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN,  Pestka S;
XX
DR   WPI; 1982-04460E/03.
DR   N-PSDB; AAN20090.
XX
PT   Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT   transformed with appropriate DNA sequences.
XX
PS   Disclosure; Fig 4; 20pp; English.
XX
CC   The inventors claim a polypeptide comprising the AA sequence of a mature
CC   human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC   DNA are specifically claimed. They are natural allelic variations. LeIF
CC   is isolated from the leukocytes of humans with chronic myelogenous
CC   leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC   virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 188 AA;

  AAP20103  Length: 188  May 13, 2004 16:42  Type: P  Check: 1790  ..

       1  MALTFALLVA LLVLSCKSSC SVGCDLPQTH SLGSRRTLML LAQMRKISLF

      51  SCLKDRHDFG FPQEEFGNQF QKAETIPVLH EMIQQIFNLF STKDSSAAWD

     101  ETLLDKFYTE LYQQLNDLEA CVIQGVGVTE TPLMKEDSIL AVRKYFQRIT

     151  LYLKEKKYSP CAWEVVRAEI MRSFSLSTNL QESLRSKE

!!AA_SEQUENCE 1.0
ID   AAP20108 standard; protein; 189 AA.
XX
AC   AAP20108;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1992  (first entry)
XX
DE   Sequence encoded by leukocyte interferon LeIF F cDNA.
XX
KW   Viral infection; therapy; malignancy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   GB2079291-A.
XX
PD   20-JAN-1982.
XX
PF   01-JUL-1981;   81GB-00020279.
XX
PR   01-JUL-1980;   80US-00164986.
PR   08-SEP-1980;   80US-00184909.
PR   10-NOV-1980;   80US-00205578.
PR   21-APR-1981;   81US-00256204.
XX
PA   (HOFF ) HOFFMANN-LA ROCHE AG.
PA   (GETH ) GENENTECH INC.
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN,  Pestka S;
XX
DR   WPI; 1982-04460E/03.
DR   N-PSDB; AAN20095.
XX
PT   Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT   transformed with appropriate DNA sequences.
XX
PS   Disclosure; Fig 4; 20pp; English.
XX
CC   The inventors claim a polypeptide comprising the AA sequence of a mature
CC   human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC   DNA are specifically claimed. They are natural allelic variations. LeIF
CC   is isolated from the leukocytes of humans with chronic myelogenous
CC   leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC   virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 189 AA;

  AAP20108  Length: 189  May 13, 2004 16:42  Type: P  Check: 2746  ..

       1  MALSFSLLMA VLVLSYKSIC SLGCDLPQTH SLGNRRALIL LAQMGRISPF

      51  SCLKDRHDFG FPQEEFDGNQ FQKAQAISVL HEMIQQTFNL FSTKDSSATW

     101  EQSLLEKFST ELNQQLNDME ACVIQEVGVE ETPLMNVDSI LAVKKYFQRI

     151  TLYLTEKKYS PCAWEVVRAE IMRSFSLSKI FQERLRRKE

!!AA_SEQUENCE 1.0
ID   AAP20104 standard; protein; 189 AA.
XX
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```
AC   AAP20104;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1992  (first entry)
XX
DE   Sequence encoded by leukocyte interferon LeIF B cDNA.
XX
KW   Viral infection; therapy; malignancy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   GB2079291-A.
XX
PD   20-JAN-1982.
XX
PF   01-JUL-1981;    81GB-00020279.
XX
PR   01-JUL-1980;    80US-00164986.
PR   08-SEP-1980;    80US-00184909.
PR   10-NOV-1980;    80US-00205578.
PR   21-APR-1981;    81US-00256204.
XX
PA   (HOFF ) HOFFMANN-LA ROCHE AG.
PA   (GETH ) GENENTECH INC.
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN,  Pestka S;
XX
DR   WPI; 1982-04460E/03.
DR   N-PSDB; AAN20091.
XX
PT   Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT   transformed with appropriate DNA sequences.
XX
PS   Disclosure; Fig 4; 20pp; English.
XX
CC   The inventors claim a polypeptide comprising the AA sequence of a mature
CC   human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC   DNA are specifically claimed. They are natural allelic variations. LeIF
CC   is isolated from the leukocytes of humans with chronic myelogenous
CC   leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC   virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 189 AA;

   AAP20104  Length: 189  May 13, 2004 16:42  Type: P  Check: 892  ..

       1  MALTFYLMVA LVVLSYKSFS SLGCDLPQTH SLGNRRALIL LAQMRRISPF

      51  SCLKDRHDFE FPQEEFDDKQ FQKAQAISVL HEMIQQTFNL FSTKDSSAAL

     101  DETLLDEFYI ELDQQLNDLE VLCDQEVGVI ESPLMYEDSI LAVRKYFQRI

     151  TLYLTEKKYS SCAWEVVRAE IMRSFSLSIN LQKRLKSKE

!!AA_SEQUENCE 1.0
ID   AAP20105 standard; protein; 189 AA.
XX
AC   AAP20105;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1992  (first entry)
XX
DE   Sequence encoded by leukocyte interferon LeIF C cDNA.
XX
KW   Viral infection; therapy; malignancy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   GB2079291-A.
XX
PD   20-JAN-1982.
XX
PF   01-JUL-1981;    81GB-00020279.
XX
PR   01-JUL-1980;    80US-00164986.
PR   08-SEP-1980;    80US-00184909.
PR   10-NOV-1980;    80US-00205578.
PR   21-APR-1981;    81US-00256204.
XX
PA   (HOFF ) HOFFMANN-LA ROCHE AG.
PA   (GETH ) GENENTECH INC.
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN,  Pestka S;
XX
DR   WPI; 1982-04460E/03.
DR   N-PSDB; AAN20092.
XX
PT   Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT   transformed with appropriate DNA sequences.
XX
PS   Disclosure; Fig 4; 20pp; English.
XX
CC   The inventors claim a polypeptide comprising the AA sequence of a mature
CC   human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC   DNA are specifically claimed. They are natural allelic variations. LeIF
CC   is isolated from the leukocytes of humans with chronic myelogenous
CC   leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC   virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 189 AA;

  AAP20105  Length: 189  May 13, 2004 16:42  Type: P  Check: 2522  ..

       1  MALSFSLLMA VLVLSYKSIC SLGCDLPQTH SLGNRRALIL LGQMGRISPF

      51  SCLKDRHDFR IPQEEFDGNQ FQKAQAISVL HEMIQQTFNL FSTEDSSAAW

     101  EQSLLEKFST ELYQQLNDLE ACVIQEVGVE ETPLMNEDSI LAVRKYFQRI

     151  TLYLIERKYS PCAWEVVRAE IMRSLSFSTN LQKRLRRKD

!!AA_SEQUENCE 1.0
ID   AAP20106 standard; protein; 189 AA.
XX
AC   AAP20106;
XX
DT   25-MAR-2003  (revised)
DT   10-AUG-1992  (first entry)
XX
DE   Sequence encoded by leukocyte interferon LeIF D cDNA.
XX
KW   Viral infection; therapy; malignancy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   GB2079291-A.
XX
PD   20-JAN-1982.
XX
PF   01-JUL-1981;    81GB-00020279.
```

XX
PR 01-JUL-1980; 80US-00164986.
PR 08-SEP-1980; 80US-00184909.
PR 10-NOV-1980; 80US-00205578.
PR 21-APR-1981; 81US-00256204.
XX
PA (HOFF) HOFFMANN-LA ROCHE AG.
PA (GETH) GENENTECH INC.
PA (GETH) GENENTECH INC.
XX
PI Goeddel DVN, Pestka S;
XX
DR WPI; 1982-04460E/03.
DR N-PSDB; AAN20093.
XX
PT Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT transformed with appropriate DNA sequences.
XX
PS Disclosure; Fig 4; 20pp; English.
XX
CC The inventors claim a polypeptide comprising the AA sequence of a mature
CC human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC DNA are specifically claimed. They are natural allelic variations. LeIF
CC is isolated from the leukocytes of humans with chronic myelogenous
CC leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 189 AA;

AAP20106 Length: 189 May 13, 2004 16:42 Type: P Check: 1986 ..

1 MASPFALLMV LVVLSCKSSC SLGCDLPETH SLDNRRTLML LAQMSRISPS

51 SCLMDRHDFG FPQEEFDGNQ FQKAPAISVL HELIQQIFNL FTTKDSSAAW

101 DEDLLDKFCT ELYQQLNDLE ACVMQEERVG ETPLMNVDSI LAVKKYFRRI

151 TLYLTEKKYS PCAWEVVRAE IMRSLSLSTN LQERLRRKE

!!AA_SEQUENCE 1.0
ID AAP20111 standard; protein; 189 AA.
XX
AC AAP20111;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1992 (first entry)
XX
DE Sequence encoded by leukocyte interferon LeIF I cDNA.
XX
KW Viral infection; therapy; malignancy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .23
FT /label= signal
XX
PN GB2079291-A.
XX
PD 20-JAN-1982.
XX
PF 01-JUL-1981; 81GB-00020279.
XX
PR 01-JUL-1980; 80US-00164986.
PR 08-SEP-1980; 80US-00184909.
PR 10-NOV-1980; 80US-00205578.
PR 21-APR-1981; 81US-00256204.
XX
PA (HOFF) HOFFMANN-LA ROCHE AG.
PA (GETH) GENENTECH INC.
PA (GETH) GENENTECH INC.
XX
PI Goeddel DVN, Pestka S;
XX
DR WPI; 1982-04460E/03.
DR N-PSDB; AAN20098.
XX
PT Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT transformed with appropriate DNA sequences.
XX
PS Disclosure; Fig 9; 20pp; English.
XX
CC The inventors claim a polypeptide comprising the AA sequence of a mature
CC human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC DNA are specifically claimed. They are natural allelic variations. LeIF
CC is isolated from the leukocytes of humans with chronic myelogenous
CC leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 189 AA;

AAP20111 Length: 189 May 13, 2004 16:42 Type: P Check: 3734 ..

1 MALSFSLLMA VLVLSYKSIC SLGCDLPQTH SLGNRRALIL LAQMGRISPF

51 SCLKDRPDFG LPQEEFDGNQ FQKTQAISVL HEMIQQTFNL FSTEDSSAAW

101 EQSLLEKFST ELYQQLNNLE ACVIQEVGME ETPLMNEDSI LAVRKYFQRI

151 TLYLTEKKYS PSAWEVVRAE IMRSLSFSTN LQKILRRKD

!!AA_SEQUENCE 1.0
ID AAP20109 standard; protein; 133 AA.
XX
AC AAP20109;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1992 (first entry)
XX
DE Sequence encoded by leukocyte interferon LeIF G cDNA.
XX
KW Viral infection; therapy; malignancy.
XX
OS Homo sapiens.
XX
PN GB2079291-A.
XX
PD 20-JAN-1982.
XX
PF 01-JUL-1981; 81GB-00020279.
XX
PR 01-JUL-1980; 80US-00164986.
PR 08-SEP-1980; 80US-00184909.
PR 10-NOV-1980; 80US-00205578.
PR 21-APR-1981; 81US-00256204.
XX
PA (HOFF) HOFFMANN-LA ROCHE AG.
PA (GETH) GENENTECH INC.
PA (GETH) GENENTECH INC.
XX
PI Goeddel DVN, Pestka S;
XX
DR WPI; 1982-04460E/03.
DR N-PSDB; AAN20096.
XX
PT Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT transformed with appropriate DNA sequences.
XX
PS Example; Fig 4; 20pp; English.
XX
CC The inventors claim a polypeptide comprising the AA sequence of a mature
CC human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC DNA are specifically claimed. They are natural allelic variations. LeIF
CC is isolated from the leukocytes of humans with chronic myelogenous

CC leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 133 AA;

AAP20109 Length: 133 May 13, 2004 16:42 Type: P Check: 9777 ..

1 HDFGFPQEEF DGNQFQKAQA ISVLHEMIQQ TFNLFSTKDS SATWDETLLD

51 KFYTELYQQL NDLEACMMQE VGVEDTPLMN VDSILTVRKY FQRITLYLTE

101 KKYSPCAWEV VRAEIMRSFS LSANLQERLR RKE

!!AA_SEQUENCE 1.0
ID AAP20112 standard; protein; 189 AA.
XX
AC AAP20112;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1992 (first entry)
XX
DE Sequence encoded by leukocyte interferon LeIF J cDNA.
XX
KW Viral infection; therapy; malignancy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .23
FT /label= signal
XX
PN GB2079291-A.
XX
PD 20-JAN-1982.
XX
PF 01-JUL-1981; 81GB-00020279.
XX
PR 01-JUL-1980; 80US-00164986.
PR 08-SEP-1980; 80US-00184909.
PR 10-NOV-1980; 80US-00205578.
PR 21-APR-1981; 81US-00256204.
XX
PA (HOFF) HOFFMANN-LA ROCHE AG.
PA (GETH) GENENTECH INC.
PA (GETH) GENENTECH INC.
XX
PI Goeddel DVN, Pestka S;
XX
DR WPI; 1982-04460E/03.
DR N-PSDB; AAN20099.
XX
PT Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT transformed with appropriate DNA sequences.
XX
PS Disclosure; Fig 9; 20pp; English.
XX
CC The inventors claim a polypeptide comprising the AA sequence of a mature
CC human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC DNA are specifically claimed. They are natural allelic variations. LeIF
CC is isolated from the leukocytes of humans with chronic myelogenous
CC leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 189 AA;

AAP20112 Length: 189 May 13, 2004 16:42 Type: P Check: 2334 ..

1 MARSFSLLMV VLVLSYKSIC SLGCDLPQTH SLRNRRALIL LAQMGRISPF

51 SCLKDRHEFR FPEEEFDGHQ FQKTQAISVL HEMIQQTFNL FSTEDSSAAW

101 EQSLLEKFST ELYQQLNDLE ACVIQEVGVE ETPLMNEDFI LAVRKYFQRI

151 TLYLMEKKYS PCAWEVVRAE IMRSFSFSTN LKKGLRRKD

!!AA_SEQUENCE 1.0
ID AAP20107 standard; protein; 170 AA.
XX
AC AAP20107;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1992 (first entry)
XX
DE Sequence encoded by leukocyte interferon LeIF E cDNA.
XX
KW Viral infection; therapy; malignancy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .4
FT /label= signal
XX
PN GB2079291-A.
XX
PD 20-JAN-1982.
XX
PF 01-JUL-1981; 81GB-00020279.
XX
PR 01-JUL-1980; 80US-00164986.
PR 08-SEP-1980; 80US-00184909.
PR 10-NOV-1980; 80US-00205578.
PR 21-APR-1981; 81US-00256204.
XX
PA (HOFF) HOFFMANN-LA ROCHE AG.
PA (GETH) GENENTECH INC.
PA (GETH) GENENTECH INC.
XX
PI Goeddel DVN, Pestka S;
XX
DR WPI; 1982-04460E/03.
DR N-PSDB; AAN20094.
XX
PT Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT transformed with appropriate DNA sequences.
XX
PS Example; Fig 4; 20pp; English.
XX
CC The inventors claim a polypeptide comprising the AA sequence of a mature
CC human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC DNA are specifically claimed. They are natural allelic variations. LeIF
CC is isolated from the leukocytes of humans with chronic myelogenous
CC leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 170 AA;

AAP20107 Length: 170 May 13, 2004 16:42 Type: P Check: 7226 ..

1 LPLGCDLPQA HSVGNRRAFI LLTQMRRISP FSYLKDRHDF DFPHQVFHGN

51 HFQKVQAIFL FHEMMQQTFN LFSTKDSSDT WDETLLDKSY TELYQQLNDL

101 EACVMXKVGV EETPLRNVDS ILAVRKYFQR ITLYLTKKKY SPCSWEAVRA

151 EIMRSFSLXT NLQERLRRKE

!!AA_SEQUENCE 1.0
ID AAP20110 standard; protein; 189 AA.
XX
AC AAP20110;
XX
DT 25-MAR-2003 (revised)

```
DT   10-AUG-1992  (first entry)
XX
DE   Sequence encoded by leukocyte interferon LeIF H cDNA.
XX
KW   Viral infection; therapy; malignancy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
XX
PN   GB2079291-A.
XX
PD   20-JAN-1982.
XX
PF   01-JUL-1981;   81GB-00020279.
XX
PR   01-JUL-1980;   80US-00164986.
PR   08-SEP-1980;   80US-00184909.
PR   10-NOV-1980;   80US-00205578.
PR   21-APR-1981;   81US-00256204.
XX
PA   (HOFF ) HOFFMANN-LA ROCHE AG.
PA   (GETH ) GENENTECH INC.
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN,  Pestka S;
XX
DR   WPI; 1982-04460E/03.
DR   N-PSDB; AAN20097.
XX
PT   Mature human leukocyte interferon polypeptide(s) - prepd. from microbes
PT   transformed with appropriate DNA sequences.
XX
PS   Disclosure; Fig 4; 20pp; English.
XX
CC   The inventors claim a polypeptide comprising the AA sequence of a mature
CC   human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding
CC   DNA are specifically claimed. They are natural allelic variations. LeIF
CC   is isolated from the leukocytes of humans with chronic myelogenous
CC   leukaemia, induced to produce interferon with Sendai or Newcastle disease
CC   virus; esp. the cell line KG-1. (Updated on 25-MAR-2003 to correct PF
CC   field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 189 AA;

  AAP20110  Length: 189  May 13, 2004 16:42  Type: P  Check: 1885  ..

      1  MALPFALMMA LVVLSCKSSC SLGCNLSQTH SLNNRRTLML MAQMGRISPF

     51  SCLKDRHDFE FPQEEFDGNQ FQKAQAISVL HEMMQQTFNL FSTKNSSAAW

    101  DETLLEKFYI ELFQQMNDLE ACVIQEVGVE ETPLMNEDSI LAVKKYFQRI

    151  TLYLMEKKYS PCAWEVVRAE IMRSFSFSTN LQKRLRRKD

!!AA_SEQUENCE 1.0
ID   AAP20294 standard; peptide; 8 AA.
XX
AC   AAP20294;
XX
DT   25-MAR-2003  (revised)
DT   09-DEC-1992  (first entry)
XX
DE   Bombesin analog peptide.
XX
KW   Bombesin; hypothermic; analgesic.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= D-Glu
FT   Misc-difference 5
FT                   /label= D-Ala
XX
PN   US4331661-A.
XX
PD   25-MAY-1982.
XX
PF   03-OCT-1980;   80US-00193621.
XX
PR   03-OCT-1980;   80US-00193621.
XX
PA   (SALK ) SALK INST BIOLOGICAL STUDIES.
XX
PI   Marki WE,  Brown MR,  Rivier JEF;
XX
DR   WPI; 1982-48049E/23.
XX
PT   Octa:peptide bombesin analogues - having hypothermic and analgesic props.
XX
PS   Claim 8; Col 8; 5pp; English.
XX
CC   The peptide may be preceded by a formyl, acetyl, propionyl, acrylyl or
CC   benzoyl group at its C-terminal. The peptide may be used for reducing the
CC   body temp. of a mammal, as well as for inducing analgesia. It produces
CC   hypothermia when injected i.c., but not when given i.v. or s.c. See also
CC   AAP20291-3. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-
CC   MAR-2003 to correct PA field.)
XX
SQ   Sequence 8 AA;

  AAP20294  Length: 8  May 13, 2004 16:42  Type: P  Check: 2699  ..

      1  QWAVAHLM

!!AA_SEQUENCE 1.0
ID   AAP20196 standard; peptide; 31 AA.
XX
AC   AAP20196;
XX
DT   19-AUG-1992  (first entry)
XX
DE   Sequence of novel beta-endorphin derivatives of human beta- lipotropin
DE   fragment 61-91.
XX
KW   Analgesic; tranquiliser; sedative; hypnotic; antidepressant agent;
KW   prolactin releasing agent; growth hormone releasing agent.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= H-Tyr
FT   Misc-difference 2
FT                   /label= Leu,Lys
FT   Modified-site   31
FT                   /label= Glu-Y
FT                   /note= "Y=hydroxy, amino, loweralkyloamino,lower
FT                   dialkylamino, and lower alkoxy"
XX
PN   US4312857-A.
XX
PD   26-JAN-1982.
XX
PF   16-JUN-1977;   77US-00807129.
XX
PR   16-JUN-1977;   77US-00807129.
XX
PA   (USVE-) US VETERANS ADMIN.
XX
PI   Coy DH,  Kastin AJ;
XX
DR   WPI; 1982-11783E/06.
```

XX
PT Hentriacont:peptide beta-endorphin derivs. - useful as e.g.
PT tranquillisers, sedatives, antidepressants and analgesics.
XX
PS Claim 1; Col 21; 13pp; English.
XX
CC The peptides of the invention are novel hentriacontapeptides.They are
CC useful as analgesic, transquiliser, sedative, hypnotic and antidepressant
CC agents, as well as prolactin releasing and growth hormone releasing
CC agents. Generally dosage levels of between 0.001 to 100 mg/kg of body
CC weight daily are administered to mammals to obtain effective relief from
CC pain or to relieve depression
XX
SQ Sequence 31 AA;

AAP20196 Length: 31 May 13, 2004 16:42 Type: P Check: 7496 ..

1 YXGFMTSEKS QTPLVTLFKN AIIKNAYKKG E

!!AA_SEQUENCE 1.0
ID AAP20028 standard; protein; 121 AA.
XX
AC AAP20028;
XX
DT 25-MAR-2003 (revised)
DT 16-AUG-2002 (revised)
DT 14-AUG-1992 (first entry)
XX
DE Sequence of preprosomatostatin-1 encoded on pLaS1.
XX
KW Somatostatin; growth hormone; peptide hormone; secretion.
XX
OS Lophius americanus.
XX
FH Key Location/Qualifiers
FT Protein 108. .121
FT /label= Somatostatin I
XX
PN EP46669-A.
XX
PD 03-MAR-1982.
XX
PF 21-AUG-1981; 81EP-00303825.
XX
PR 25-AUG-1980; 80US-00181046.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Hobart P, Crawford R, Pictet RL, Rutter WJ;
XX
DR WPI; 1982-18113E/10.
DR N-PSDB; AAN20033.
XX
PT New somatostatin and precursors - produced by transformed microorganisms.
XX
PS Example; Fig 3; 50pp; English.
XX
CC The inventors claim preprosomatostatin-1, prosomatostatin-1,
CC preprosomatostatin-2, prosomatostatin-2 and somatostatin-2; and DNA
CC encoding them. The translation of somatostatin mRNA yields a precursor
CC (prepro S1) containing a signal peptide which may be released during the
CC transit into the endoplasmic reticulum, and the resultant precursor (pro
CC S1) is subsequently cleaved to yield S1 itself. The prepeptide portion of
CC prepro S1 is probably about 20-25 bases long. Translation of pLaS2
CC predicts the sequence of a 125 AA peptide which surprisingly contains a
CC 14 AA sequence at its carboxy terminus which differs from S1 by only 2
CC AAs, and is termed Somatostatin 2 (S2). (Updated on 16-AUG-2002 to add
CC missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 121 AA;

AAP20028 Length: 121 May 13, 2004 16:42 Type: P Check: 9125 ..

1 MKMVSSSRLR CLLVLLLSLT ASISCSFAGQ RDSKLRLLLH RYPLQGSKQD

51 MTRSALAELL LSDLLQGENE ALEEENFPLA EGGPEDAHAD LERAASGGPL

101 LAPRERKAGC KNFFWKTFTS C

!!AA_SEQUENCE 1.0
ID AAP20029 standard; protein; 125 AA.
XX
AC AAP20029;
XX
DT 25-MAR-2003 (revised)
DT 16-AUG-2002 (revised)
DT 14-AUG-1992 (first entry)
XX
DE Sequence of preprosomatostatin-2 encoded on pLaS2.
XX
KW Somatostatin; growth hormone; peptide hormone; secretion.
XX
OS Lophius americanus.
XX
FH Key Location/Qualifiers
FT Protein 112. .125
FT /label= Somatostatin II
XX
PN EP46669-A.
XX
PD 03-MAR-1982.
XX
PF 21-AUG-1981; 81EP-00303825.
XX
PR 25-AUG-1980; 80US-00181046.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Hobart P, Crawford R, Pictet RL, Rutter WJ;
XX
DR WPI; 1982-18113E/10.
DR N-PSDB; AAN20034.
XX
PT New somatostatin and precursors - produced by transformed microorganisms.
XX
PS Example; Fig 3; 50pp; English.
XX
CC The inventors claim preprosomatostatin-1, prosomatostatin-1,
CC preprosomatostatin-2, prosomatostatin-2 and somatostatin-2; and DNA
CC encoding them. The translation of somatostatin mRNA yields a precursor
CC (prepro S1) containing a signal peptide which may be released during the
CC transit into the endoplasmic reticulum, and the resultant precursor (pro
CC S1) is subsequently cleaved to yield S1 itself. The prepeptide portion of
CC prepro S1 is probably about 20-25 bases long. Translation of pLaS2
CC predicts the sequence of a 125 AA peptide which surprisingly contains a
CC 14 AA sequence at its carboxy terminus which differs from S1 by only 2
CC AAs, and is termed Somatostatin 2 (S2). (Updated on 16-AUG-2002 to add
CC missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 125 AA;

AAP20029 Length: 125 May 13, 2004 16:42 Type: P Check: 5960 ..

1 MQCIRCPAIL ALLALVLCGP SVSSQLDREQ SDNQDLDLEL RQHWLLERAR

51 SAGLLSQEWS KRAVEELLAQ MSLPEATFQR EAEDASMATE GRMNLERSVD

101 STNNLPPRER KAGCKNFYWK GFTSC

!!AA_SEQUENCE 1.0
ID AAP20398 standard; peptide; 27 AA.
XX
AC AAP20398;
XX
DT 25-MAR-2003 (revised)
DT 30-NOV-1992 (first entry)

```
XX
DE   Secretin precursor peptide.
XX
KW   Strong acid; digestive canal hormone; pancreas; gastrin; pepsin; insulin.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Boc protected"
FT   Modified-site   2
FT                   /note= "But protected"
FT   Modified-site   3
FT                   /note= "OBut protected"
FT   Modified-site   5
FT                   /note= "But protected"
FT   Modified-site   7
FT                   /note= "But protected"
FT   Modified-site   8
FT                   /note= "But protected"
FT   Modified-site   9
FT                   /note= "OBut protected"
FT   Modified-site   11
FT                   /note= "But protected"
FT   Modified-site   12
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
FT   Modified-site   14
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
FT   Modified-site   15
FT                   /note= "OBut protected"
FT   Modified-site   16
FT                   /note= "But protected"
FT   Modified-site   18
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
FT   Modified-site   21
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
XX
PN   EP47997-A.
XX
PD   24-MAR-1982.
XX
PF   11-SEP-1981;   81EP-00107186.
XX
PR   11-SEP-1980;   80JP-00125262.
XX
PA   (EISA ) EISAI CO LTD.
XX
PI   Uchiyama M,  Sato T,  Yoshino H,  Tsuchiya Y,  Konishi M,  Tsujii M;
PI   Hisatake Y,  Koiwa A;
XX
DR   WPI; 1982-24409E/13.
XX
PT   Heptacosa:peptide(s) - useful for high yield conversion to high purity
PT   secretin on strong acid treatment.
XX
PS   Claim 1; Page 43; 47pp; English.
XX
CC   The sequence in AAP20398 is a precursor for the production of secretin.
CC   The peptide sequences given in AAP20399-402 are peptides which are useful
CC   in the production of this precursor. The precusor is treated with strong
CC   acid in the preparation of secretin. Secretin is one of the digestive
CC   canal hormones and is useful in promotion of pancreatic external
CC   secretin, controlling gastrin-stimulating secretin of the stomach acid,
CC   releasing insulin, stimulating secretin of pepsin and decomposing fat. It
CC   is used as a pancreatic-function examining agent and a medicine for
CC   curing duodenal ulcers etc. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 27 AA;

  AAP20398  Length: 27  May 13, 2004 16:42  Type: P  Check: 9384  ..

      1  HSDGTFTSEL SRLRDSARLQ RLLQGLV

!!AA_SEQUENCE 1.0
ID   AAP20400 standard; protein; 17 AA.
XX
AC   AAP20400;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Secretin precursor formation peptide 2.
XX
KW   Strong acid; digestive canal hormone; pancreas; gastrin; pepsin; insulin.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "But protected"
FT   Modified-site   2
FT                   /note= "Tos protected"
FT   Modified-site   4
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
FT   Modified-site   5
FT                   /note= "OBut protected"
FT   Modified-site   6
FT                   /note= "But protected"
FT   Modified-site   8
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
FT   Modified-site   11
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
XX
PN   EP47997-A.
XX
PD   24-MAR-1982.
XX
PF   11-SEP-1981;   81EP-00107186.
XX
PR   11-SEP-1980;   80JP-00125262.
XX
PA   (EISA ) EISAI CO LTD.
XX
PI   Uchiyama M,  Sato T,  Yoshino H,  Tsuchiya Y,  Konishi M,  Tsujii M;
PI   Hisatake Y,  Koiwa A;
XX
DR   WPI; 1982-24409E/13.
XX
PT   Heptacosa:peptide(s) - useful for high yield conversion to high purity
PT   secretin on strong acid treatment.
XX
PS   Claim 4; Page 44; 47pp; English.
XX
CC   The sequence in AAP20398 is a precursor for the production of secretin.
CC   The peptide sequences given in AAP20399-402 are peptides which are useful
CC   in the production of this precursor. The precusor is treated with strong
CC   acid in the preparation of secretin. Secretin is one of the digestive
CC   canal hormones and is useful in promotion of pancreatic external
CC   secretin, controlling gastrin-stimulating secretin of the stomach acid,
CC   releasing insulin, stimulating secretin of pepsin and decomposing fat. It
CC   is used as a pancreatic-function examining agent and a medicine for
CC   curing duodenal ulcers etc. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 17 AA;

  AAP20400  Length: 17  May 13, 2004 16:42  Type: P  Check: 1925  ..

      1  SRLRDSARLQ RLLQGLV
```

```
!!AA_SEQUENCE 1.0
ID   AAP20401 standard; protein; 10 AA.
XX
AC   AAP20401;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Secretin precursor formation peptide 3.
XX
KW   Strong acid; digestive canal hormone; pancreas; gastrin; pepsin; insulin.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
FT   Modified-site   4
FT                   /note= "PhSO2 ring substd. by 1, 2 or 3 alkyl or alkoxy
FT                   gps."
XX
PN   EP47997-A.
XX
PD   24-MAR-1982.
XX
PF   11-SEP-1981;   81EP-00107186.
XX
PR   11-SEP-1980;   80JP-00125262.
XX
PA   (EISA ) EISAI CO LTD.
XX
PI   Uchiyama M,  Sato T,  Yoshino H,  Tsuchiya Y,  Konishi M,  Tsujii M;
PI   Hisatake Y,  Koiwa A;
XX
DR   WPI; 1982-24409E/13.
XX
PT   Heptacosa:peptide(s) - useful for high yield conversion to high purity
PT   secretin on strong acid treatment.
XX
PS   Claim 6; Page 44; 47pp; English.
XX
CC   The sequence in AAP20398 is a precursor for the production of secretin.
CC   The peptide sequences given in AAP20399-402 are peptides which are useful
CC   in the production of this precursor. The precusor is treated with strong
CC   acid in the preparation of secretin. Secretin is one of the digestive
CC   canal hormones and is useful in promotion of pancreatic external
CC   secretin, controlling gastrin-stimulating secretin of the stomach acid,
CC   releasing insulin, stimulating secretin of pepsin and decomposing fat. It
CC   is used as a pancreatic-function examining agent and a medicine for
CC   curing duodenal ulcers etc. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 10 AA;

   AAP20401  Length: 10  May 13, 2004 16:42  Type: P  Check: 4320  ..

       1  RLQRLLQGLV

!!AA_SEQUENCE 1.0
ID   AAP20315 standard; protein; 9 AA.
XX
AC   AAP20315;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Analgesic peptide 5.
XX
KW   Trauma; myocardial infarction.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "pyroglutamine"
XX
PN   JP57050922-A.
XX
PD   25-MAR-1982.
XX
PF   12-SEP-1980;   80DE-03034531.
XX
PR   12-SEP-1980;   80DE-03034531.
PR   16-SEP-1980;   80JP-00127345.
XX
PA   (FARM ) FARMITALIA ERBA SPA CARLO.
XX
DR   WPI; 1982-36007E/18.
XX
PT   Poly:peptide-contg. analgesics - comprising amino and sulphite substd.
PT   poly:peptide contg. Tyr, Gly, Trp, Asp, Phe, and e.g. Pyr, Glu, Gln, Asn,
PT   Thr, Met, Leu, Nle or Val.
XX
PS   Disclosure; Page 2; 6pp; Japanese.
XX
CC   The sequences given in AAP20311-15 are analgesic polypeptides for the
CC   treatment of men and animals. Administration of some of these peptides
CC   relieves pain due to trauma or due to myocardial infarction. (Updated on
CC   25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 9 AA;

   AAP20315  Length: 9  May 13, 2004 16:42  Type: P  Check: 3410  ..

       1  QDYTGWMDF

!!AA_SEQUENCE 1.0
ID   AAP20311 standard; peptide; 9 AA.
XX
AC   AAP20311;
XX
DT   25-MAR-2003  (revised)
DT   30-NOV-1992  (first entry)
XX
DE   Analgesic peptide 1.
XX
KW   Trauma; myocardial infarction.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "pyroglutamine"
FT   Misc-difference 4
FT                   /label= Thr, Met, Leu, Nle, Val
FT   Misc-difference 7
FT                   /label= Met, Nle, Leu
XX
PN   JP57050922-A.
XX
PD   25-MAR-1982.
XX
PF   12-SEP-1980;   80DE-03034531.
XX
PR   12-SEP-1980;   80DE-03034531.
PR   16-SEP-1980;   80JP-00127345.
XX
PA   (FARM ) FARMITALIA ERBA SPA CARLO.
XX
DR   WPI; 1982-36007E/18.
XX
PT   Poly:peptide-contg. analgesics - comprising amino and sulphite substd.
PT   poly:peptide contg. Tyr, Gly, Trp, Asp, Phe, and e.g. Pyr, Glu, Gln, Asn,
PT   Thr, Met, Leu, Nle or Val.
XX
```

```
PS   Claim 1; Page 1; 6pp; Japanese.
XX
CC   The sequences given in AAP20311-15 are analgesic polypeptides for the
CC   treatment of men and animals. Administration of some of these peptides
CC   relieves pain due to trauma or due to myocardial infarction. (Updated on
CC   25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 9 AA;

   AAP20311  Length: 9  May 13, 2004 16:42  Type: P  Check: 3503  ..

       1  QDYXGWXDF

!!AA_SEQUENCE 1.0
ID   AAP20049 standard; protein; 187 AA.
XX
AC   AAP20049;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Interferon-beta gene.
XX
KW   E.coli; mouse; pBR322; pCR1; pMB9; pSC1.
XX
OS   Homo sapiens.
XX
PN   WO8202715-A.
XX
PD   19-AUG-1982.
XX
PF   04-FEB-1981;   81JP-00014373.
XX
PR   04-FEB-1981;   81JP-00014373.
PR   11-JUL-1981;   81JP-00108539.
XX
PA   (NICA-) JAPAN FOUND CANCER RES.
PA   (SUGA/) SUGANO H.
PA   (GANK-) GAN KENKYU-KAI.
PA   (KAGA ) CHEMO SERO THERAPEUTIC RES INST.
XX
PI   Sugano H,  Taniguchi T,  Ono S;
XX
DR   WPI; 1982-72320E/34.
DR   N-PSDB; AAN20057.
XX
PT   Human interferon beta gene in recombinant DNA - can be used to produce
PT   human interferon beta in E.coli or material with identical chemical
PT   structure in eukaryotic cells.
XX
PS   Disclosure; Fig 2; 19pp; Japanese.
XX
CC   The sequence given is encoded by the interferon-beta gene. This gene and
CC   the transcriptional control sequences associated with it can be used in
CC   recombinant DNA technology to produce interferon-beta from E.coli or a
CC   chemically identical substance from mouse cells. The interferon-beta gene
CC   is introduced into E. coli or mouse cells using a vector, pref. lambda
CC   phage, Charon phage or the plasmids pBR322, pCR1, pMB9 or pSC1. (Updated
CC   on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 187 AA;

  AAP20049  Length: 187  May 13, 2004 16:42  Type: P  Check: 2261  ..

       1  MTNKCLLQIA LLLCFSTTAL SMSYNLLGFL QRSSNFQCQK LLWQLNGRLE

      51  YCLKDRMNFD IPEEIKQLQQ FQKEDAALTI YEMLQNIFAI FRQDSSSTGW

     101  NETIVENLLA NVYHQINHLK TVLEEKLEKE DFTRGKLMSS LHLKRYYGRI

     151  LHYLRAKEYS HCAWTIVRVE ILRNFYFINR LTGYLRN

!!AA_SEQUENCE 1.0
ID   AAP20140 standard; peptide; 9 AA.
XX
AC   AAP20140;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Angiotensin-converting enzyme inhibitor (1).
XX
KW   ACE; peptidyl-dipeptide hydrolase; reagent.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "pyroGlutamic acid"
FT   Misc-difference 2
FT                   /note= "aliphatic or aromatic amino acid"
FT   Modified-site   3
FT                   /note= "opt. modified proline residue"
FT   Modified-site   5
FT                   /note= "opt. modified proline residue"
XX
PN   DD155518-A.
XX
PD   16-JUN-1982.
XX
PF   08-AUG-1980;   80DD-00223208.
XX
PR   08-AUG-1980;   80DD-00223208.
XX
PA   (AMBI=) AM USSR BIOL MED.
XX
PI   Arold H,  Reissmann S,  Orekhovich B,  Krit NA;
XX
DR   WPI; 1982-85918E/41.
XX
PT   Nona:peptide enzyme inhibitors prodn. - useful in treatment and diagnosis
PT   of hypertension.
XX
PS   Claim 1; Page 10; 11pp; German.
XX
CC   The peptide is useful for treatment and diagnosis of some forms of
CC   hypertension and also as enzyme inhibitor and specific reagent for
CC   biochemical, physiological and pharmacological investigations. (Updated
CC   on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 9 AA;

   AAP20140  Length: 9  May 13, 2004 16:42  Type: P  Check: 3570  ..

       1  EXPRPQIPP

!!AA_SEQUENCE 1.0
ID   AAP20372 standard; protein; 9 AA.
XX
AC   AAP20372;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Angiotensin-converting enzyme inhibitor (2).
XX
KW   ACE; peptidyl-dipeptide hydrolase; reagent.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "pyroGlutamic acid"
```

XX
PN DD155518-A.
XX
PD 16-JUN-1982.
XX
PF 08-AUG-1980; 80DD-00223208.
XX
PR 08-AUG-1980; 80DD-00223208.
XX
PA (AMBI=) AM USSR BIOL MED.
XX
PI Arold H, Reissmann S, Orekhovich B, Krit NA;
XX
DR WPI; 1982-85918E/41.
XX
PT Nona:peptide enzyme inhibitors prodn. - useful in treatment and diagnosis
PT of hypertension.
XX
PS Example 7; Page 8; 11pp; German.
XX
CC The peptide is useful for treatment and diagnosis of some forms of
CC hypertension and also as enzyme inhibitor and specific reagent for
CC biochemical, physiological and pharmacological investigations. (Updated
CC on 25-MAR-2003 to correct PR field.)
XX
SQ Sequence 9 AA;

AAP20372 Length: 9 May 13, 2004 16:42 Type: P Check: 3568 ..

1 EWPRPQIPP

!!AA_SEQUENCE 1.0
ID AAP20032 standard; protein; 16 AA.
XX
AC AAP20032;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 14-SEP-1992 (first entry)
XX
DE Partial sequence corresponding to cattle pre-somatotropin.
XX
KW Somatotropin.
XX
OS Bos taurus.
XX
PN EP67026-A.
XX
PD 15-DEC-1982.
XX
PF 01-JUN-1981; 81US-00269187.
XX
PR 01-JUN-1981; 81US-00269187.
XX
PA (UNMS) UNIV MICHIGAN STATE.
XX
PI Rottman FM, Nilson JH;
XX
DR WPI; 1982-09673J/51.
DR N-PSDB; AAN20037.
XX
PT Cloning bovine growth hormone gene - with plasmid PLG 23 and Escherichia
PT coli host NRRL B-12436.
XX
PS Example 11; Page 11; 15pp; English.
XX
CC The sequence represents the partial sequence of cattle pre- somatotropin.
CC (Updated on 25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to
CC standardise OS field)
XX
SQ Sequence 16 AA;

AAP20032 Length: 16 May 13, 2004 16:42 Type: P Check: 775 ..

1 LLLAFALLCL PWTQVV

!!AA_SEQUENCE 1.0
ID AAP20033 standard; protein; 20 AA.
XX
AC AAP20033;
XX
DT 28-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 14-SEP-1992 (first entry)
XX
DE Partial sequence corresponding to cattle pre-somatotropin.
XX
KW Somatotropin.
XX
OS Bos taurus.
XX
PN EP67026-A.
XX
PD 15-DEC-1982.
XX
PF 01-JUN-1981; 81US-00269187.
XX
PR 01-JUN-1981; 81US-00269187.
XX
PA (UNMS) UNIV MICHIGAN STATE.
XX
PI Rottman FM, Nilson JH;
XX
DR WPI; 1982-09673J/51.
DR N-PSDB; AAN20038.
XX
PT Cloning bovine growth hormone gene - with plasmid PLG 23 and Escherichia
PT coli host NRRL B-12436.
XX
PS Example 11; Page 11; 15pp; English.
XX
CC The sequence represents the partial sequence of cattle pre- somatotropin.
CC (Updated on 25-MAR-2003 to correct PA field.) (Updated on 28-OCT-2003 to
CC standardise OS field)
XX
SQ Sequence 20 AA;

AAP20033 Length: 20 May 13, 2004 16:42 Type: P Check: 6394 ..

1 QQKSDLELLR ISLLLIQSWL

!!AA_SEQUENCE 1.0
ID AAP20248 standard; peptide; 38 AA.
XX
AC AAP20248;
XX
DT 27-NOV-1992 (first entry)
XX
DE Parathyroid hormone 1-38 fragment.
XX
KW h-PTH; antibody; cross-reaction.
XX
OS Homo sapiens.
XX
PN JP57081448-A.
XX
PD 21-MAY-1982.
XX
PF 11-NOV-1980; 80JP-00158566.
XX
PR 11-NOV-1980; 80JP-00158566.
XX
PA (TOXN) TOYO JOZO KK.
XX
DR WPI; 1982-53429E/26.
XX

```
PT   Human parathyroid hormone (1-38) fragment - useful as peptide for prepn.
PT   of antibody of h-PTH.
XX
PS   Claim 1; Page 1; 21pp; Japanese.
XX
CC   The sequence given corresponds to the first 38 amino acids from human
CC   parathyroid hormone (h-PTH). This fragment has parathyroid activity and
CC   antibodies raised against this fragment are cross reactive with h-PTH.
CC   This fragment is therefore useful for raising antibodies against h-PTH
XX
SQ   Sequence 38 AA;

   AAP20248  Length: 38  May 13, 2004 16:42  Type: P  Check: 6659  ..

       1  SVSEIQLMHN LGKHLNSMER VEWLRKKLQD VHNKVALG

!!AA_SEQUENCE 1.0
ID   AAP20167 standard; protein; 22 AA.
XX
AC   AAP20167;
XX
DT   25-MAR-2003  (revised)
DT   15-SEP-1992  (first entry)
XX
DE   Insulin A-chain.
XX
KW   Insulin A-chain.
XX
OS   Synthetic.
XX
PN   US4356270-A.
XX
PD   26-OCT-1982.
XX
PF   08-NOV-1977;   77US-00849691.
XX
PR   08-NOV-1977;   77US-00849691.
PR   05-NOV-1979;   79US-00091334.
PR   30-JUL-1982;   82US-00403599.
XX
PA   (GETH ) GENETECH INC.
XX
PI   Itakura K;
XX
DR   WPI; 1982-97410E/45.
DR   N-PSDB; AAN20161.
XX
PT   Recombinant microbial cloning vehicle - for expression of polypeptide(s),
PT   esp. hormones such as somatostatin.
XX
PS   Disclosure; Fig 9; 23pp; English.
XX
CC   The sequence represents human synthetic insulin A-chain, and is produced
CC   by expression of a gene comprising codons preferred for expression in
CC   microorganisms. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 22 AA;

   AAP20167  Length: 22  May 13, 2004 16:42  Type: P  Check: 9504  ..

       1  MGIVEQCCTS ICSLYQLENY CN

!!AA_SEQUENCE 1.0
ID   AAP20166 standard; protein; 31 AA.
XX
AC   AAP20166;
XX
DT   25-MAR-2003  (revised)
DT   15-SEP-1992  (first entry)
XX
DE   Insulin B-chain.
XX
KW   Insulin B-chain.
XX
OS   Synthetic.
XX
PN   US4356270-A.
XX
PD   26-OCT-1982.
XX
PF   08-NOV-1977;   77US-00849691.
XX
PR   08-NOV-1977;   77US-00849691.
PR   05-NOV-1979;   79US-00091334.
PR   30-JUL-1982;   82US-00403599.
XX
PA   (GETH ) GENETECH INC.
XX
PI   Itakura K;
XX
DR   WPI; 1982-97410E/45.
DR   N-PSDB; AAN20162.
XX
PT   Recombinant microbial cloning vehicle - for expression of polypeptide(s),
PT   esp. hormones such as somatostatin.
XX
PS   Disclosure; Fig 9; 23pp; English.
XX
CC   The sequence represents human synthetic insulin B-chain, and is produced
CC   by expression of a gene comprising codons preferred for expression in
CC   microorganisms. (Updated on 25-MAR-2003 to correct PR field.) (Updated on
CC   25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 31 AA;

   AAP20166  Length: 31  May 13, 2004 16:42  Type: P  Check: 8093  ..

       1  MFVNQHLCGS HLVEALYLVC GERGFFYTPK T

!!AA_SEQUENCE 1.0
ID   AAP20373 standard; peptide; 5 AA.
XX
AC   AAP20373;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Cargutocin precursor.
XX
KW   Oxytocic agent; linear molecule; cyclization.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "The amino gp of Tyr1 is condensed to the side
FT                   chain of Asu5."
FT   Modified-site   5
FT                   /note= "The amino gp of Tyr1 is condensed to the side
FT                   chain of Asu5."
FT   Modified-site   5
FT                   /label= OTHER
FT                   /note= "L-aminosuberic acid"
XX
PN   JP57062245-A.
XX
PD   15-APR-1982.
XX
PF   01-OCT-1980;   80JP-00137970.
XX
PR   01-OCT-1980;   80JP-00137970.
XX
PA   (YOSH ) YOSHITOMI PHARM IND KK.
XX
DR   WPI; 1982-42246E/21.
```

```
XX
PT   Cargutocin prepn. from l-amino suberic acid ester - by successive
PT   prolongation of peptide chain followed by its cyclisation and reaction
PT   with hydrazine.
XX
PS   Claim 1; Page 1; 4pp; Japanese.
XX
CC   The sequence given is a precursor of cargutocin (see also AAP20373). It
CC   is reacted with a linear peptide H-Gly-Leu-Gly-NH2 to produce the product
CC   molecule. Cargutocin is useful as an oxytocic agent. The product provides
CC   high solubility of reactants in solvents and high yield in cyclization.
CC   (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 5 AA;

   AAP20373  Length: 5  May 13, 2004 16:42  Type: P  Check: 1230  ..

      1  YIQNX

!!AA_SEQUENCE 1.0
ID   AAP20374 standard; protein; 8 AA.
XX
AC   AAP20374;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Cargutocin.
XX
KW   Oxytocic agent; linear molecule; cyclization.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "The amino gp of Tyr1 is condensed to the side
FT                   chain of Asu5."
FT   Modified-site   5
FT                   /note= "The amino gp of Tyr1 is condensed to the side
FT                   chain of Asu5."
FT   Modified-site   5
FT                   /label= OTHER
FT                   /note= "L-aminosuberic acid"
XX
PN   JP57062245-A.
XX
PD   15-APR-1982.
XX
PF   01-OCT-1980;   80JP-00137970.
XX
PR   01-OCT-1980;   80JP-00137970.
XX
PA   (YOSH ) YOSHITOMI PHARM IND KK.
XX
DR   WPI; 1982-42246E/21.
XX
PT   Cargutocin prepn. from l-amino suberic acid ester - by successive
PT   prolongation of peptide chain followed by its cyclisation and reaction
PT   with hydrazine.
XX
PS   Disclosure; Page 1; 4pp; Japanese.
XX
CC   The sequence given is cargutocin which is produced by reacting a
CC   precursor molecule (see also AAP20373) with a linear peptide H-Gly-Leu-
CC   Gly-NH2 to produce the product molecule. Cargutocin is useful as an
CC   oxytocic agent. The product provides high solubility of reactants in
CC   solvents and high yield in cyclization. (Updated on 25-MAR-2003 to
CC   correct PR field.)
XX
SQ   Sequence 8 AA;

   AAP20374  Length: 8  May 13, 2004 16:42  Type: P  Check: 2756  ..

      1  YIQNXGLG

!!AA_SEQUENCE 1.0
ID   AAP20303 standard; peptide; 8 AA.
XX
AC   AAP20303;
XX
DT   25-MAR-2003  (revised)
DT   27-NOV-1992  (first entry)
XX
DE   Gastrointestinal movement increasing polypeptide.
XX
KW   Motility; accelerator.
XX
OS   Synthetic.
XX
PN   JP56164156-A.
XX
PD   17-DEC-1981.
XX
PF   06-SEP-1974;   74JP-00103150.
XX
PR   06-SEP-1974;   74JP-00103150.
PR   20-MAY-1980;   80JP-00136502.
XX
PA   (ITOS/) ITO S.
PA   (ITOZ/) ITO Z.
XX
DR   WPI; 1982-08767E/05.
XX
PT   Polypeptide prepn. for accelerating gastrointestinal movement - by
PT   reacting penta:peptide with amine, and proline using protective gps.
XX
PS   Claim 1; Page 1; 2pp; Japanese.
XX
CC   The N-terminal Pro may be omitted. The peptide is an accelerator of
CC   gastrointestinal motility. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 8 AA;

   AAP20303  Length: 8  May 13, 2004 16:42  Type: P  Check: 2689  ..

      1  PQQFFGLM

!!AA_SEQUENCE 1.0
ID   AAP20030 standard; protein; 70 AA.
XX
AC   AAP20030;
XX
DT   25-MAR-2003  (revised)
DT   14-AUG-1992  (first entry)
XX
DE   Sequence encoded by synthetic gene for urogastrone.
XX
KW   Peptide hormone; wound healing; ulcer; treatment.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Protein         15. .67
XX
PN   EP46039-A.
XX
PD   17-FEB-1982.
XX
PF   31-JUL-1981;   81EP-00303517.
XX
PR   05-AUG-1980;   80GB-00025440.
XX
PA   (SEAR ) SEARLE & CO G D.
XX
PI   Eaton MAW,  Smith JC,  Doel MT,  Lilley DMJ,  Carey NH,  Bell LD;
XX
```

DR WPI; 1982-14084E/08.
DR N-PSDB; AAN20035.
XX
PT Synthetic genes coding for urogastrone expression - and plasmid
PT recombinant(s) and cells contg. such genes.
XX
PS Disclosure; Fig 1; 33pp; English.
XX
CC The inventors claim synthetic genes coding for urogastrone. Two genes are
CC specifically claimed. The specified plasmid vector is pLFI, which is
CC constructed by inserting a DNA sequence of the S. aureus plasmid pUB110
CC (between EcoRI and BamHI sites) between the EcoRI and BamHI sites of
CC pBR322. Recombinants are used to transform E. coli MRC 8. (Updated on 25-
CC MAR-2003 to correct PA field.)
XX
SQ Sequence 70 AA;

AAP20030 Length: 70 May 13, 2004 16:42 Type: P Check: 1706 ..

1 MQTQLPTPSS KLKKNSDSEC PLSHDGYCLH DGVCMYIEAL DKYACNCVVG

51 YIGERCQYRD LKWWELRXGS

!!AA_SEQUENCE 1.0
ID AAP20004 standard; peptide; 25 AA.
XX
AC AAP20004;
XX
DT 25-MAR-2003 (revised)
DT 06-JUL-1992 (first entry)
XX
DE N-terminal sequence of carboxypeptidase-A-gamma.
XX
KW Carboxypeptidase-A-gamma.
XX
OS Sus scrofa.
XX
PN EP60520-A.
XX
PD 22-SEP-1982.
XX
PF 11-MAR-1982; 82EP-00101952.
XX
PR 12-MAR-1981; 81JP-00034523.
XX
PA (EISA) EISAI CO LTD.
XX
PI Koide A, Yoshizawa M;
XX
DR WPI; 1982-81677E/39.
XX
PT Carboxy-peptidase A-gamma enzyme from porcine pancreas - useful for
PT aiding protein digestion and in determn. of protein structure.
XX
PS Claim 1; Page 15; 21pp; English.
XX
CC The sequence is that of the N-terminal of carboxypeptidase-A-gamma,
CC obtained from pig pancreas by extraction, and useful in aiding protein
CC digestion in the digestive tract and in the determination of the primary
CC structure of proteins and peptides. (Updated on 25-MAR-2003 to correct PA
CC field.)
XX
SQ Sequence 25 AA;

AAP20004 Length: 25 May 13, 2004 16:42 Type: P Check: 4409 ..

1 NYATYHTLEE IYDFMDILVA EHPQL

!!AA_SEQUENCE 1.0
ID AAP20231 standard; peptide; 9 AA.
XX
AC AAP20231;
XX
DT 18-JAN-1993 (first entry)
XX
DE Sequence which corresp. to AAs 101-110 of the C4-isozyme of lactate
DE dehydrogenase.
XX
KW Antigenic enzyme; sperm; vaccine; fertility control; contraceptive.
XX
OS Mammalia.
XX
PN US4310456-A.
XX
PD 12-JAN-1982.
XX
PF 18-AUG-1980; 80US-00179049.
XX
PR 18-AUG-1980; 80US-00179049.
XX
PA (NOUN) UNIV NORTHWESTERN.
XX
PI Goldberg E;
XX
DR WPI; 1982-07959E/04.
XX
PT Antigenic linear nona:peptide - useful in vaccine for reducing fertility
PT of mammals.
XX
PS Claim 1; Col 4; 3pp; English.
XX
CC The peptide of the invention is an antigen useful in vaccines for
CC reducing the fertility of mammals. It is found in male sperm. Dose is 1-
CC 10 mg. For use in a vaccine, it may be conjugated to a carrier, esp. to a
CC protein which itself elicits an antigenic response
XX
SQ Sequence 9 AA;

AAP20231 Length: 9 May 13, 2004 16:42 Type: P Check: 3595 ..

1 RMVSGQTRL

!!AA_SEQUENCE 1.0
ID AAP20487 standard; peptide; 13 AA.
XX
AC AAP20487;
XX
DT 25-MAR-2003 (revised)
DT 01-JUL-1993 (first entry)
XX
DE N-terminal human beta interferon peptide.
XX
KW Hapten; carrier; hapten-carrier binding complex; antigen.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Peptide 1. .8
FT /note= "peptide I, reacted with peptide II"
FT Peptide 9. .13
FT /note= "peptide II reacted with peptide I"
XX
PN JP57163351-A.
XX
PD 07-OCT-1982.
XX
PF 31-MAR-1981; 81JP-00047840.
XX
PR 24-AUG-1981; 81JP-00133129.
XX
PA (SAKA) OTSUKA PHARM CO LTD.
XX
DR WPI; 1982-98291E/46.
XX
PT N-Terminal peptide(s) of human beta-interferon - used for producing
PT antibody which specifically reacts with human beta-interferon.

```
XX
PS   Claim 1; Page 1; 23pp; Japanese.
XX
CC   The peptide comprises the N-terminal peptide of human beta interferon
CC   (peptide II) linked to peptide I (or fragments truncated from the N
CC   terminal). The complete peptide is used as a hapten with a carrier in the
CC   presence of a hapten-carrier binding agent to provide a peptide-carrier
CC   complex useful in obtaining human beta interferon antibody of high
CC   specificity. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 13 AA;

   AAP20487  Length: 13  May 13, 2004 16:42  Type: P  Check: 7186  ..

       1  MSYNLLGFLQ RSS

!!AA_SEQUENCE 1.0
ID   AAP30498 standard; protein; 31 AA.
XX
AC   AAP30498;
XX
DT   25-MAR-2003  (revised)
DT   02-JUN-1992  (first entry)
XX
DE   Sequence of thymosin beta-8 and thymosin beta-9.
XX
KW   Immune function; immunodeficiency therapy; thymosin.
XX
OS   Cow.
XX
FH   Key             Location/Qualifiers
FT   Modified-site    1
FT                    /label= N-Ac-A
FT   Misc-difference  40. .41
FT                    /note= "For beta 8, 39-40 = OH; for beta 9, 39-40 = A-K-
FT                    OH"
XX
PN   US4389343-A.
XX
PD   21-JUN-1983.
XX
PF   24-DEC-1981;   81US-00334420.
XX
PR   24-DEC-1981;   81US-00334420.
XX
PA   (HOFF ) HOFFMANN-LA ROCHE AG.
XX
PI   Horecker BL;
XX
DR   WPI; 1983-705548/27.
XX
PT   Polypeptide(s) thymosin beta-8 and beta-9 - from calf thymus, with immuno
PT   -potentiating activity.
XX
PS   Claim 1; Col 12; 8pp; English.
XX
CC   Thymosin beta-8 and beta-9 are useful for restoring and stimulating
CC   immune function, esp. for the treatment of opportunistic infections. The
CC   prefd. dose (parenteral) is 10ng-0.1 mg/kg. (Updated on 25-MAR-2003 to
CC   correct PR field.)
XX
SQ   Sequence 31 AA;

   AAP30498  Length: 31  May 13, 2004 16:42  Type: P  Check: 9184  ..

       1  CSLSTCVLGK LSQELHKLQT YPRTNTGSGT P

!!AA_SEQUENCE 1.0
ID   AAP30001 standard; protein; 562 AA.
XX
AC   AAP30001;
XX
DT   25-MAR-2003  (revised)
DT   25-APR-1992  (first entry)
XX
DE   Sequence of full length tissue plasminogen activator (t-Pa).
XX
KW   Cardiovascular disorder therapy; pulmonary embolism; thrombolytic agent.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide          1. .35
FT                    /label= signal
XX
PN   EP93619-A.
XX
PD   09-NOV-1983.
XX
PF   04-MAY-1983;   83EP-00302501.
XX
PR   05-MAY-1982;   82US-00374860.
PR   14-JUL-1982;   82US-00398003.
PR   07-APR-1983;   83US-00483052.
PR   21-APR-1988;   88US-00184477.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Goeddel DVN,  Kohr WJ,  Pennica D,  Vehar GA;
XX
DR   WPI; 1983-816270/46.
DR   N-PSDB; AAN30001.
XX
PT   Pure human tissue plasminogen activator - produced by culturing cells
PT   with vectors contg. the corresponding DNA sequence.
XX
PS   Disclosure; Fig 5; 77pp; English.
XX
CC   AAN30001Was prepd. from a cDNA library from human melanoma cells screened
CC   using DNA probes coding for known sequences in human t-PA. The 35 amino
CC   acids preceding the mature sequence is considered a presequence of the
CC   mature protein. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 562 AA;

  AAP30001  Length: 562  May 13, 2004 16:42  Type: P  Check: 7568  ..

       1  MDAMKRGLCC VLLLCGAVFV SPSQEIHARF RRGARSYQVI CRDEKTQMIY

      51  QQHQSWLRPV LRSNRVEYCW CNSGRAQCHS VPVKSCSEPR CFNGGTCQQA

     101  LYFSDFVCQC PEGFAGKCCE IDTRATCYED QGISYRGTWS TAESGAECTN

     151  WNSSALAQKP YSGRRPDAIR LGLGNHNYCR NPDRDSKPWC YVFKAGKYSS

     201  EFCSTPACSE GNSDCYFGNG SAYRGTHSLT ESGASCLPWN SMILIGKVYT

     251  AQNPSAQALG LGKHNYCRNP DGDAKPWCHV LKNRRLTWEY CDVPSCSTCG

     301  LRQYSQPQFR IKGGLFADIA SHPWQAAIFA KHRRSPGERF LCGGILISSC

     351  WILSAAHCFQ ERFPPHHLTV ILGRTYRVVP GEEEQKFEVE KYIVHKEFDD

     401  DTYDNDIALL QLKSDSSRCA QESSVVRTVC LPPADLQLPD WTECELSGYG

     451  KHEALSPSYS ERLKEAHVRL YPSSRCTSQH LLNRTVTDNM LCAGDTRSGG

     501  PQANLHDACQ GDSGGPLVCL NDGRMTLVGI ISWGLGCGQK DVPGVYTKVT

     551  NYLDWIRDNM RP

!!AA_SEQUENCE 1.0
ID   AAP30013 standard; peptide; 379 AA.
XX
AC   AAP30013;
XX
```

DT 25-MAR-2003 (revised)
DT 25-APR-1992 (first entry)
XX
DE Sequence encoded by veal chymosin gene.
XX
KW Protolytic enzyme; zymogen; rennin; chymosin; cheese making;
KW microbial vector.
XX
OS Bos taurus.
XX
PN BE897201-A.
XX
PD 03-NOV-1983.
XX
PF 01-JUL-1982; 82US-00394433.
XX
PR 01-JUL-1982; 82US-00394433.
PR 13-APR-1983; 83US-00484539.
XX
PA (GEMX) GENEX CORP.
XX
DR WPI; 1983-820813/47.
DR N-PSDB; AAN30022.
XX
PT Isolated chymosin or rennin and prochymosin genes - plasmid(s) which
PT replicate in prokaryotic organisms, esp. Escherichia coli, and organisms
PT used for chymosin biosynthesis.
XX
PS Disclosure; Page 33-36; 43pp; French.
XX
CC The inventors claim isolated chymosin (rennin) and prochymosin genes from
CC calves, and plasmids contg. the genes which are capable of replicating in
CC a prokaryotic organism. The prokaryotic organism is pref. an Escherichia
CC species, esp. E. coli p Gx 1225 (NRRL B-15061). The microorganisms
CC transformed by the plasmid are also claimed. (Updated on 25-MAR-2003 to
CC correct PA field.)
XX
SQ Sequence 379 AA;

AAP30013 Length: 379 May 13, 2004 16:42 Type: P Check: 6144 ..

1 CLVVLLAVFA LSQGAEITRI PLYKGKSLRK ALKEHGLLED FLQKQQSGIS

51 SKYSGFGDVA SVPLTNYLDS QYFGKIYLGT PPQEFTVLFD TGSSDFWVPS

101 IYCKSNACKN HQRFDPRKSS TFQNLGKPLS IHYGTGSMQG ILGYDTVTVS

151 NIVDIQQTVG LSTQEPGDVF TYXEFDGILG MAYPSLASEY SIPVFDNMMN

201 RHLVAQDLFS VYMDRNGQES MLTLGAIDPS YYTGSLHWVP VTVQQYCQFT

251 VDSVTISGVV VACEGGCQAI LDTGTSKLVG PSSDILNIQQ AIGATQNQYG

301 EFDIDCDNLS YMPTVVFEIN GKMYPLTPSA YTSQDQGFCT SGFQSENHSQ

351 KWILGDVFIR EYYSVFDRAN NLVGLAKAI

!!AA_SEQUENCE 1.0
ID AAP30234 standard; peptide; 14 AA.
XX
AC AAP30234;
XX
DT 27-AUG-2003 (revised)
DT 25-MAR-2003 (revised)
DT 14-JUN-1992 (first entry)
XX
DE Sequence that corresp. to AAs 101-115 of the C4 isozyme of lactate
DE dehydrogenase (LDH-C4) contained in mammalian sperm.
XX
KW C4 isozyme; lactate dehydrogenase; sperm; fertility; vaccine;
KW contraception.
XX
OS Mammalia.
XX
PN US4377516-A.
XX
PD 22-MAR-1983.
XX
PF 10-DEC-1981; 81US-00329242.
XX
PR 10-DEC-1981; 81US-00329242.
XX
PA (NOUN) UNIV NORTHWESTERN.
XX
PI Goldberg E;
XX
DR WPI; 1983-34374K/14.
XX
PT Antigenic linear 10-14 aminoacid peptide(s) - useful in vaccines for
PT reducing fertility in mammals, esp. humans.
XX
PS Claim 1; Col 6; 4pp; English.
XX
CC The peptides of the invention have 10-14 AAs and corresp. to AA SQ 101 to
CC 111,112,113,114 or 115 rep. of the C4 isozyme of lactate dehydrogenase
CC contained in mammalian sperm. They can be used in fertility reducing
CC vaccines. A vaccine can be prepd. e.g. by reacting a mixt. of 1 micromole
CC tetanus toxoid, 160 micro mole of the claimed peptide, and 18 m mole 1-
CC ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride in water (pH
CC 6) for 12 hrs. at room temp. and 24 hrs. at 4 degrees C, followed by
CC removing excess reactants by dialysis or gel filtration. (Updated on 25-
CC MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA
CC field.) (Updated on 27-AUG-2003 to correct OS field.)
XX
SQ Sequence 14 AA;

AAP30234 Length: 14 May 13, 2004 16:42 Type: P Check: 8224 ..

1 RMVSGQTRLD LLQR

!!AA_SEQUENCE 1.0
ID AAP30021 standard; peptide; 27 AA.
XX
AC AAP30021;
XX
DT 25-MAR-2003 (revised)
DT 03-SEP-1992 (first entry)
XX
DE Synthetic secretin.
XX
KW Pharmaceutically; deprotection; digestive; hormone; pancreatism;
KW duodenal ulcer.
XX
OS Synthetic.
XX
PN JP58144355-A.
XX
PD 27-AUG-1983.
XX
PF 22-FEB-1982; 82JP-00026088.
XX
PR 22-FEB-1982; 82JP-00026088.
XX
PA (EISA) EISAI CO LTD.
XX
DR WPI; 1983-779933/40.
XX
PT Pharmaceutically active secretin - prepd. by removing protective Gp. from
PT heptacosa:peptide.
XX
PS Claim 3; Page 2; 13pp; Japanese.
XX
CC Secretin, which has hitherto been produced by extraction from porcine
CC duodenum, may be produced by standard solid phase synthesis. Secretin is
CC a digestive tract hormone with many useful pharmaceutical actions such as
CC pancreatic secretion promotion, gastrin stimulation, gastric acid

CC secretion inhibition, insulin release, stimulation of pepsin secretion
CC and lipolytic action. It is useful as a reagent for test on pancreatism
CC and as a remedy for duodenal ulcers. (Updated on 25-MAR-2003 to correct
CC PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 27 AA;

AAP30021 Length: 27 May 13, 2004 16:42 Type: P Check: 9384 ..

1 HSDGTFTSEL SRLRDSARLQ RLLQGLV

!!AA_SEQUENCE 1.0
ID AAP30124 standard; peptide; 28 AA.
XX
AC AAP30124;
XX
DT 27-AUG-2003 (revised)
DT 03-APR-1992 (first entry)
XX
DE Sequence of VP1 capsid protein residues 130-160 from the amino-terminus,
DE FMDV, type A, subtype 24.
XX
KW Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW diagnosis.
XX
OS Foot-and-mouth disease virus.
XX
PN WO8303547-A.
XX
PD 27-OCT-1983.
XX
PF 14-APR-1982; 82US-00368308.
XX
PR 14-APR-1982; 82US-00368308.
PR 25-MAR-1983; 83US-00478847.
PR 20-SEP-1984; 84US-00653475.
PR 18-DEC-1984; 84US-00682819.
XX
PA (BITT/) BITTLE J L.
PA (SCRI-) SCRIPPS CLINIC & RE.
XX
DR WPI; 1983-807942/44.
XX
PT Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT prodn. of vaccines and in diagnostic tests.
XX
PS Disclosure; Fig 1; 90pp; English.
XX
CC The peptides of the invention corresp. to a region on the antigenic
CC Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC 2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC field.)
XX
SQ Sequence 28 AA;

AAP30124 Length: 28 May 13, 2004 16:42 Type: P Check: 1008 ..

1 YNGTSKYAVG GSGRGDMGTL AARVKQLP

!!AA_SEQUENCE 1.0
ID AAP30109 standard; peptide; 18 AA.
XX
AC AAP30109;
XX
DT 28-OCT-2003 (revised)
DT 03-APR-1992 (first entry)
XX
DE Sequence of VP1 capisid protein residues 141-160 from the amino-
DE terminus, FMDV, Tubingen type A subtype 10, strain 61.
XX
KW Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW diagnosis.
XX
OS Foot-and-mouth disease virus.
XX
PN WO8303547-A.
XX
PD 27-OCT-1983.
XX
PF 14-APR-1982; 82US-00368308.
XX
PR 14-APR-1982; 82US-00368308.
PR 25-MAR-1983; 83US-00478847.
PR 20-SEP-1984; 84US-00653475.
PR 18-DEC-1984; 84US-00682819.
XX
PA (BITT/) BITTLE J L.
PA (SCRI-) SCRIPPS CLINIC & RE.
XX
DR WPI; 1983-807942/44.
XX
PT Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT prodn. of vaccines and in diagnostic tests.
XX
PS Disclosure; Page 14; 90pp; English.
XX
CC The peptides of the invention corresp. to a region on the antigenic
CC Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC 2mg peptide for inoculations. (Updated on 28-OCT-2003 to standardise OS
CC field)
XX
SQ Sequence 18 AA;

AAP30109 Length: 18 May 13, 2004 16:42 Type: P Check: 3045 ..

1 SRSGDLESIA ARVATQLP

!!AA_SEQUENCE 1.0
ID AAP30116 standard; peptide; 20 AA.
XX
AC AAP30116;
XX
DT 27-AUG-2003 (revised)
DT 03-APR-1992 (first entry)
XX
DE Sequence of peptide PP1c which corresp. to AAs 61-80 of VP1 capsid
DE protein.
XX
KW Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW diagnosis.
XX
OS Human poliovirus 1.
OS Human poliovirus 3.
XX
PN WO8303547-A.
XX
PD 27-OCT-1983.
XX
PF 14-APR-1982; 82US-00368308.
XX
PR 14-APR-1982; 82US-00368308.
PR 25-MAR-1983; 83US-00478847.
PR 20-SEP-1984; 84US-00653475.
PR 18-DEC-1984; 84US-00682819.
XX
PA (BITT/) BITTLE J L.
PA (SCRI-) SCRIPPS CLINIC & RE.
XX
DR WPI; 1983-807942/44.
XX
PT Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT prodn. of vaccines and in diagnostic tests.
XX
PS Example; Page 52; 90pp; English.

```
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 20 AA;

   AAP30116  Length: 20  May 13, 2004 16:42  Type: P  Check: 6413  ..

       1  VQTRHVVQHR SRSESTIESF

!!AA_SEQUENCE 1.0
ID   AAP30112 standard; peptide; 20 AA.
XX
AC   AAP30112;
XX
DT   28-OCT-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of peptide PP1 which corresp. to AAs 61-80 of VP1 capsid
DE   protein.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis; Polio virus types 1 and 2.
XX
OS   Foot-and-mouth disease virus.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 9
FT                   /label= H, R
FT   Misc-difference 16
FT                   /label= S, T
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Example; Page 52; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2mg peptide for inoculations. (Updated on 28-OCT-2003 to standardise OS
CC   field)
XX
SQ   Sequence 20 AA;

   AAP30112  Length: 20  May 13, 2004 16:42  Type: P  Check: 6601  ..

       1  VGTRHVVQXR SRSESXIESF

!!AA_SEQUENCE 1.0
ID   AAP30316 standard; peptide; 28 AA.
XX
AC   AAP30316;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of VP1 capsid protein residues 130-160 from the amino-terminus,
DE   FMDV, type A, subtype 12; strain 119.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Foot-and-mouth disease virus.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Disclosure; Fig 1; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 28 AA;

   AAP30316  Length: 28  May 13, 2004 16:42  Type: P  Check: 599  ..

       1  YNFTNKYSNG GQAGDMGSLA ARVAKQLP

!!AA_SEQUENCE 1.0
ID   AAP30115 standard; peptide; 20 AA.
XX
AC   AAP30115;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of peptide PP1b which corresp. to AAs 61-80 of VP1 capsid
DE   protein.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Human poliovirus 1.
OS   Human poliovirus 3.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
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```
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Example; Page 52; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 20 AA;

   AAP30115  Length: 20  May 13, 2004 16:42  Type: P  Check: 6487  ..

       1  VQTRHVVQRR SRSESSIESF

!!AA_SEQUENCE 1.0
ID   AAP30111 standard; peptide; 20 AA.
XX
AC   AAP30111;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of polio virus VP1 capsid protein at position 61-82.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Human poliovirus 1; 'Maloney strain'.
OS   Human poliovirus 1; 'Sabin strain'.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Disclosure; Fig 2; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Cose is 20 um-
CC   2mg peptide for inoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 20 AA;

   AAP30111  Length: 20  May 13, 2004 16:42  Type: P  Check: 6397  ..

       1  VQTRHVVQHR SRSESSIESF

!!AA_SEQUENCE 1.0
ID   AAP30106 standard; peptide; 31 AA.
XX
AC   AAP30106;
XX
DT   28-OCT-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of VP1 capisid protein residues 130-160 from the amino-
DE   terminus, FMDV, Tubingen type 0, subtype 1, strain Kaufbeuren (01k).
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Foot-and-mouth disease virus.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Example; Page 26; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2mg peptide for inoculations. (Updated on 28-OCT-2003 to standardise OS
CC   field)
XX
SQ   Sequence 31 AA;

   AAP30106  Length: 31  May 13, 2004 16:42  Type: P  Check: 8427  ..

       1  YNGECRYNRN AVPNLRGDLQ VLAQKVARTL P

!!AA_SEQUENCE 1.0
ID   AAP30117 standard; peptide; 20 AA.
XX
AC   AAP30117;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of peptide PP1d which corresp. to AAs 61-80 of VP1 capsid
DE   protein.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Human poliovirus 1.
OS   Human poliovirus 3.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
```

XX
PA (BITT/) BITTLE J L.
PA (SCRI-) SCRIPPS CLINIC & RE.
XX
DR WPI; 1983-807942/44.
XX
PT Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT prodn. of vaccines and in diagnostic tests.
XX
PS Example; Page 52; 90pp; English.
XX
CC The peptides of the invention corresp. to a region on the antigenic
CC Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC 2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC field.)
XX
SQ Sequence 20 AA;

AAP30117 Length: 20 May 13, 2004 16:42 Type: P Check: 6503 ..

1 VQTRHVVQRR SRSESTIESF

!!AA_SEQUENCE 1.0
ID AAP30123 standard; peptide; 28 AA.
XX
AC AAP30123;
XX
DT 27-AUG-2003 (revised)
DT 03-APR-1992 (first entry)
XX
DE Sequence of VP1 capsid protein residues 130-160 from the amino-terminus,
DE FMDV, type A, subtype 10, strain 61.
XX
KW Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW diagnosis.
XX
OS Foot-and-mouth disease virus.
XX
PN WO8303547-A.
XX
PD 27-OCT-1983.
XX
PF 14-APR-1982; 82US-00368308.
XX
PR 14-APR-1982; 82US-00368308.
PR 25-MAR-1983; 83US-00478847.
PR 20-SEP-1984; 84US-00653475.
PR 18-DEC-1984; 84US-00682819.
XX
PA (BITT/) BITTLE J L.
PA (SCRI-) SCRIPPS CLINIC & RE.
XX
DR WPI; 1983-807942/44.
XX
PT Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT prodn. of vaccines and in diagnostic tests.
XX
PS Disclosure; Fig 1; 90pp; English.
XX
CC The peptides of the invention corresp. to a region on the antigenic
CC Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC 2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC field.)
XX
SQ Sequence 28 AA;

AAP30123 Length: 28 May 13, 2004 16:42 Type: P Check: 962 ..

1 YDGTNKYSAS DSSGDLGSIA ARVATQLP

!!AA_SEQUENCE 1.0
ID AAP30107 standard; peptide; 31 AA.
XX
AC AAP30107;
XX
DT 28-OCT-2003 (revised)
DT 03-APR-1992 (first entry)
XX
DE Sequence of VP1 capisid protein residues 130-160 from the amino-
DE terminus, FMDV, Tubingen type A, subtype 12, strain 119.
XX
KW Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW diagnosis.
XX
OS Foot-and-mouth disease virus.
XX
PN WO8303547-A.
XX
PD 27-OCT-1983.
XX
PF 14-APR-1982; 82US-00368308.
XX
PR 14-APR-1982; 82US-00368308.
PR 25-MAR-1983; 83US-00478847.
PR 20-SEP-1984; 84US-00653475.
PR 18-DEC-1984; 84US-00682819.
XX
PA (BITT/) BITTLE J L.
PA (SCRI-) SCRIPPS CLINIC & RE.
XX
DR WPI; 1983-807942/44.
XX
PT Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT prodn. of vaccines and in diagnostic tests.
XX
PS Example; Page 26; 90pp; English.
XX
CC The peptides of the invention corresp. to a region on the antigenic
CC Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC 2mg peptide for inoculations. (Updated on 28-OCT-2003 to standardise OS
CC field)
XX
SQ Sequence 31 AA;

AAP30107 Length: 31 May 13, 2004 16:42 Type: P Check: 7806 ..

1 YNGTNKYSAS GSGVRGDFGS LAPRVARQLP A

!!AA_SEQUENCE 1.0
ID AAP30317 standard; peptide; 28 AA.
XX
AC AAP30317;
XX
DT 27-AUG-2003 (revised)
DT 03-APR-1992 (first entry)
XX
DE Sequence of VP1 capsid protein residues 130-160 from the amino-terminus,
DE FMDV, type A, subtype 79.
XX
KW Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW diagnosis.
XX
OS Foot-and-mouth disease virus.
XX
PN WO8303547-A.
XX
PD 27-OCT-1983.
XX
PF 14-APR-1982; 82US-00368308.
XX
PR 14-APR-1982; 82US-00368308.
PR 25-MAR-1983; 83US-00478847.
PR 20-SEP-1984; 84US-00653475.

```
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Disclosure; Fig 1; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 28 AA;

   AAP30317  Length: 28  May 13, 2004 16:42  Type: P  Check: 1141  ..

       1  YNGTSKYTVG GSGRGDMGSL AARVKQLP

!!AA_SEQUENCE 1.0
ID   AAP30114 standard; peptide; 20 AA.
XX
AC   AAP30114;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of peptide PP1a which corresp. to AAs 61-80 of VP1 capsid
DE   protein.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Human poliovirus 1.
OS   Human poliovirus 3.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Example; Page 52; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Cose is 20 um-
CC   2mg peptide for inoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 20 AA;

   AAP30114  Length: 20  May 13, 2004 16:42  Type: P  Check: 6397  ..

       1  VQTRHVVQHR SRSESSIESF
```

```
!!AA_SEQUENCE 1.0
ID   AAP30122 standard; peptide; 31 AA.
XX
AC   AAP30122;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of VP1 capsid protein residues 130-160 from the amino-terminus,
DE   FMDV, type 0, subtype 1, strain Campos.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Foot-and-mouth disease virus.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Disclosure; Fig 1; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or Polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2 mg peptide for innoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 31 AA;

   AAP30122  Length: 31  May 13, 2004 16:42  Type: P  Check: 8617  ..

       1  YNGECRYSRN AVPNVRGDLQ VLAQKVARTL P

!!AA_SEQUENCE 1.0
ID   AAP30319 standard; peptide; 20 AA.
XX
AC   AAP30319;
XX
DT   27-AUG-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of polio virus VP1 capsid protein at position 61-82.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Poliovirus 3; 'Leon strain'.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
```

```
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Disclosure; Fig 2; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Cose is 20 um-
CC   2mg peptide for inoculations. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 20 AA;

   AAP30319  Length: 20  May 13, 2004 16:42  Type: P  Check: 6503  ..

       1  VQTRHVVQRR SRSESTIESF

!!AA_SEQUENCE 1.0
ID   AAP30108 standard; peptide; 20 AA.
XX
AC   AAP30108;
XX
DT   28-OCT-2003  (revised)
DT   03-APR-1992  (first entry)
XX
DE   Sequence of VP1 capisid protein residues 141-160 from the amino-
DE   terminus, FMDV, Tubingen type 0, subtype 1, strain Kaufbeuren.
XX
KW   Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
KW   diagnosis.
XX
OS   Foot-and-mouth disease virus.
XX
PN   WO8303547-A.
XX
PD   27-OCT-1983.
XX
PF   14-APR-1982;   82US-00368308.
XX
PR   14-APR-1982;   82US-00368308.
PR   25-MAR-1983;   83US-00478847.
PR   20-SEP-1984;   84US-00653475.
PR   18-DEC-1984;   84US-00682819.
XX
PA   (BITT/) BITTLE J L.
PA   (SCRI-) SCRIPPS CLINIC & RE.
XX
DR   WPI; 1983-807942/44.
XX
PT   Antigenic peptide(s) corresp. to picornavirus capsid protein - useful in
PT   prodn. of vaccines and in diagnostic tests.
XX
PS   Disclosure; Page 14; 90pp; English.
XX
CC   The peptides of the invention corresp. to a region on the antigenic
CC   Picornavirus capsid protein. The capsid protein FMDV VP1 or polio virus
CC   VP1. When linked to carriers the peptides are immunogenic. Dose is 20 ug-
CC   2mg peptide for inoculations. (Updated on 28-OCT-2003 to standardise OS
CC   field)
XX
SQ   Sequence 20 AA;

   AAP30108  Length: 20  May 13, 2004 16:42  Type: P  Check: 6292  ..

       1  VPNLRGDLQV LAQKVARTLP

!!AA_SEQUENCE 1.0
ID   AAP30056 standard; peptide; 40 AA.
XX
AC   AAP30056;
XX
DT   25-MAR-2003  (revised)
DT   08-SEP-1992  (first entry)
XX
DE   Truncated parathyroid gland hormone.
XX
KW   PTH; gland; enzyme; immuno assay; antibody; antigen; radioimmunoassay;
KW   labelled; beta-galactosidase.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /note= "Cys or Tyr"
XX
PN   JP58172353-A.
XX
PD   11-OCT-1983.
XX
PF   01-APR-1982;   82JP-00054665.
XX
PR   01-APR-1982;   82JP-00054665.
XX
PA   (TOXN ) TOYO JOZO KK.
XX
DR   WPI; 1983-818151/46.
XX
PT   Peptide(s) used in diagnosis of parathyroid gland hormone - by enzyme
PT   immunoassay or radio immunoassay.
XX
PS   Claim 1; Page 1; 34pp; Japanese.
XX
CC   The peptide corresponds to residues 45-84 of human parathyroid gland
CC   hormone. The peptide may be prepd. by condensing appropriately protected
CC   amino acids or peptides in a conventional manner, using the carbodiimide,
CC   azide, active ester or anhydride method. The protecting gps. may be
CC   removed by hydrolysis, acidolysis, reduction, etc. By using antibody
CC   produced by the peptide as an antigen or immune reaction of the peptide,
CC   the concentration of h-PTH may be determined (by radio immuno assay or
CC   enzyme immuno assay). The peptide may be labelled with e.g. beta-
CC   galactosidase, peroxidase, etc. See also AAP30053-5. (Updated on 25-MAR-
CC   2003 to correct PR field.)
XX
SQ   Sequence 40 AA;

   AAP30056  Length: 40  May 13, 2004 16:42  Type: P  Check: 2110  ..

       1  XAGSQRPRKK EDNVLVESHE KSLGEADKAD VNVLTKAKSQ

!!AA_SEQUENCE 1.0
ID   AAP30053 standard; peptide; 21 AA.
XX
AC   AAP30053;
XX
DT   25-MAR-2003  (revised)
DT   08-SEP-1992  (first entry)
XX
DE   Truncated parathyroid gland hormone.
XX
KW   PTH; gland; enzyme; immuno assay; antibody; antigen; radioimmunoassay;
KW   labelled; beta-galactosidase.
XX
OS   Synthetic.
XX
PN   JP58172353-A.
XX
PD   11-OCT-1983.
XX
```

PF 01-APR-1982; 82JP-00054665.
XX
PR 01-APR-1982; 82JP-00054665.
XX
PA (TOXN) TOYO JOZO KK.
XX
DR WPI; 1983-818151/46.
XX
PT Peptide(s) used in diagnosis of parathyroid gland hormone - by enzyme
PT immunoassay or radio immunoassay.
XX
PS Claim 1; Page 1; 34pp; Japanese.
XX
CC The peptide corresponds to residues 64-84 of human parathyroid gland
CC hormone. The peptide may be prepd. by condensing appropriately protected
CC amino acids or peptides in a conventional manner, using the carbodiimide,
CC azide, active ester or anhydride method. The protecting gps. may be
CC removed by hydrolysis, acidolysis, reduction, etc. By using antibody
CC produced by the peptide as an antigen or immune reaction of the peptide,
CC the concentration of h-PTH may be determined (by radio immuno assay or
CC enzyme immuno assay). The peptide may be labelled with e.g. beta-
CC galactosidase, peroxidase, etc. See also AAP30054-6. (Updated on 25-MAR-
CC 2003 to correct PR field.)
XX
SQ Sequence 21 AA;

AAP30053 Length: 21 May 13, 2004 16:42 Type: P Check: 7598 ..

1 YKSLGEADKA DVNVLTKAKS Q

!!AA_SEQUENCE 1.0
ID AAP30055 standard; peptide; 35 AA.
XX
AC AAP30055;
XX
DT 25-MAR-2003 (revised)
DT 08-SEP-1992 (first entry)
XX
DE Truncated parathyroid gland hormone.
XX
KW PTH; gland; enzyme; immuno assay; antibody; antigen; radioimmunoassay;
KW labelled; beta-galactosidase.
XX
OS Synthetic.
XX
PN JP58172353-A.
XX
PD 11-OCT-1983.
XX
PF 01-APR-1982; 82JP-00054665.
XX
PR 01-APR-1982; 82JP-00054665.
XX
PA (TOXN) TOYO JOZO KK.
XX
DR WPI; 1983-818151/46.
XX
PT Peptide(s) used in diagnosis of parathyroid gland hormone - by enzyme
PT immunoassay or radio immunoassay.
XX
PS Claim 1; Page 1; 34pp; Japanese.
XX
CC The peptide corresponds to residues 50-84 of human parathyroid gland
CC hormone. The peptide may be prepd. by condensing appropriately protected
CC amino acids or peptides in a conventional manner, using the carbodiimide,
CC azide, active ester or anhydride method. The protecting gps. may be
CC removed by hydrolysis, acidolysis, reduction, etc. By using antibody
CC produced by the peptide as an antigen or immune reaction of the peptide,
CC the concentration of h-PTH may be determined (by radio immuno assay or
CC enzyme immuno assay). The peptide may be labelled with e.g. beta-
CC galactosidase, peroxidase, etc. See also AAP30053-6. (Updated on 25-MAR-
CC 2003 to correct PR field.)
XX
SQ Sequence 35 AA;

AAP30055 Length: 35 May 13, 2004 16:42 Type: P Check: 7399 ..

1 YPRKKEDNVL VESHEKSLGE ADKADVNLLT KAKSQ

!!AA_SEQUENCE 1.0
ID AAP30054 standard; peptide; 33 AA.
XX
AC AAP30054;
XX
DT 25-MAR-2003 (revised)
DT 08-SEP-1992 (first entry)
XX
DE Truncated parathyroid gland hormone.
XX
KW PTH; gland; enzyme; immuno assay; antibody; antigen; radioimmunoassay;
KW labelled; beta-galactosidase.
XX
OS Synthetic.
XX
PN JP58172353-A.
XX
PD 11-OCT-1983.
XX
PF 01-APR-1982; 82JP-00054665.
XX
PR 01-APR-1982; 82JP-00054665.
XX
PA (TOXN) TOYO JOZO KK.
XX
DR WPI; 1983-818151/46.
XX
PT Peptide(s) used in diagnosis of parathyroid gland hormone - by enzyme
PT immunoassay or radio immunoassay.
XX
PS Claim 1; Page 1; 34pp; Japanese.
XX
CC The peptide corresponds to residues 52-84 of human parathyroid gland
CC hormone. The peptide may be prepd. by condensing appropriately protected
CC amino acids or peptides in a conventional manner, using the carbodiimide,
CC azide, active ester or anhydride method. The protecting gps. may be
CC removed by hydrolysis, acidolysis, reduction, etc. By using antibody
CC produced by the peptide as an antigen or immune reaction of the peptide,
CC the concentration of h-PTH may be determined (by radio immuno assay or
CC enzyme immuno assay). The peptide may be labelled with e.g. beta-
CC galactosidase, peroxidase, etc. See also AAP30053-6. (Updated on 25-MAR-
CC 2003 to correct PR field.)
XX
SQ Sequence 33 AA;

AAP30054 Length: 33 May 13, 2004 16:42 Type: P Check: 2453 ..

1 YKKEDNVLVE SHEKSLGEAD KADVNVLTKA KSQ

!!AA_SEQUENCE 1.0
ID AAP30446 standard; protein; 381 AA.
XX
AC AAP30446;
XX
DT 25-MAR-2003 (revised)
DT 03-AUG-1992 (first entry)
XX
DE Sequence encoded by preprochymosin cDNA.
XX
KW Milk-clotting; cheese making; enzyme; zymogen.
XX
OS Cow.
XX
FH Key   Location/Qualifiers
FT Region   1. .16
FT   /label= preprochymosin
FT Region   17. .58

FT /label= prochymosin
FT Region 59. .381
FT /label= chymosin
XX
PN GB2100737-A.
XX
PD 06-JAN-1983.
XX
PF 11-JUN-1982; 82GB-00017096.
XX
PR 17-JUN-1981; 81GB-00018688.
PR 11-NOV-1981; 81GB-00033998.
PR 01-DEC-1981; 81GB-00036185.
PR 10-FEB-1982; 82GB-00003907.
XX
PA (CLLT) CELLTECH LTD.
XX
PI Carey NH, Harris TJR, Lowe PA, Doel MT, Emtage JS;
XX
DR WPI; 1983-00545K/01.
DR N-PSDB; AAN30209.
XX
PT Prodn. or calf stomach chymosin for cheese making - by cultivation of
PT micro-organisms transformed with vector system.
XX
PS Claim 41; Fig 4; 26pp; English.
XX
CC The inventors claim a method for the prodn. of calf stomach chymosin for
CC cheese making. Genes and polypeptides for preprochymosin, prochymosin and
CC chymosin are claimed, as are vector systems and a prochymosin primer.
CC (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to
CC correct PA field.)
XX
SQ Sequence 381 AA;

AAP30446 Length: 381 May 13, 2004 16:42 Type: P Check: 4880 ..

1 MRCLVVLLAV FALSQGAEIT RIPLYKGKSL RKALKEHGLL EDFLQKQQYG

51 ISSKYSGFGE VASVPLTNYL DSQYFGKIYL GTPPQEFTVL FDTGSSDFWV

101 PSIYCKSNAC KNHQRFDPRK SSTFQNLGKP LSIHYGTGSM QGILGYDTVT

151 VSNIVDIQQT VGLSTQEPGD VFTYAEFDGI LGMAYPSLAS EYSIPVFDNM

201 MNRHLVAQDL FSVYMDRIGQ ESMLTLGAIN PSYYTGSLHW VPVTVQQYWQ

251 FTVDSVTISG VVVACEGGCQ AILDTGTSKL VGPSSDILNI QQAIGATQNQ

301 YGEFDIDCDN LSYMPTVVFE INGKMYPLTP SAYTSQDQGF CTSGFQSENH

351 SQKWILGDVF IREYYSVFDR ANNLVGLAKA I

!!AA_SEQUENCE 1.0
ID AAP30602 standard; protein; 80 AA.
XX
AC AAP30602;
XX
DT 15-JUN-1992 (first entry)
XX
DE Sequence encoded by the E. coli alkaline phosphatase (pho A) gene.
XX
KW Enzyme; secretion vector; Escherichia coli vector.
XX
OS Escherichia coli.
XX
FH Key Location/Qualifiers
FT Peptide 1. .21
FT /label= signal
XX
PN EP77569-A.
XX
PD 27-APR-1983.
XX
PF 20-OCT-1981; 81JP-00166367.
XX
PR 20-OCT-1981; 81JP-00166367.
XX
PA (TAMU/) TAMURA G.
XX
PI Tamura G, Yoda K, Kikuchi Y, Yamasaki M;
XX
DR WPI; 1983-42047K/18.
DR N-PSDB; AAN30057.
XX
PT Gene derived from E coli alkaline phosphatase - as vector for e.g. beta
PT lactamase gene.
XX
PS Disclosure; Fig 2; 25pp; English.
XX
CC The inventors claim the Sq in AAN30057. They also claim recombinant DNA
CC contg. this gene and a foreign gene (specifically one coding for beta-
CC lactamase), and strains of E. coli modified with this recombinant DNA
XX
SQ Sequence 80 AA;

AAP30602 Length: 80 May 13, 2004 16:42 Type: P Check: 4656 ..

1 MKQSTIALAL LPLLFTPVTK ARTPEMPVLE NRAAQGDITA PGGARRLTGD

51 QTAALRDSLS DKPAKNIILL IGDGMGDWGS

!!AA_SEQUENCE 1.0
ID AAP30095 standard; peptide; 59 AA.
XX
AC AAP30095;
XX
DT 15-JUN-1992 (first entry)
XX
DE Sequence encoded by DNA upstream of the alkaline phosphatase (pho A)
DE gene.
XX
KW Enzyme; secretion vector; Escherichia coli vector.
XX
OS Escherichia coli.
XX
PN EP77569-A.
XX
PD 27-APR-1983.
XX
PF 20-OCT-1981; 81JP-00166367.
XX
PR 20-OCT-1981; 81JP-00166367.
XX
PA (TAMU/) TAMURA G.
XX
PI Tamura G, Yoda K, Kikuchi Y, Yamasaki M;
XX
DR WPI; 1983-42047K/18.
DR N-PSDB; AAN30057.
XX
PT Gene derived from E coli alkaline phosphatase - as vector for e.g. beta
PT lactamase gene.
XX
PS Disclosure; Fig 2; 25pp; English.
XX
CC The inventors claim the Sq in AAN30057. They also claim recombinant DNA
CC contg. this gene and a foreign gene (specifically one coding for beta-
CC lactamase), and strains of E. coli modified with this recombinant DNA
XX
SQ Sequence 59 AA;

AAP30095 Length: 59 May 13, 2004 16:42 Type: P Check: 5630 ..

1 ALEIIVTAML RNMAQNDQQR LIDQVEGALY EVKPDASIPD DDTELLPDYV

51 KKLLKHPRQ

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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:21:50 ; Search time 48 Seconds
(without alignments)
52.978 Million cell updates/sec

Title: US-09-622-058-1
Perfect score: 47
Sequence: 1 FELRYRRAF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	47	100.0	9	2	AAY29885	Aay29885 RY domain
2	47	100.0	27	3	AAB37013	Aab37013 Bcl2 poly
3	47	100.0	27	3	AAB37012	Aab37012 Bcl2 poly
4	47	100.0	152	6	AAG79760	Aag79760 Bcl-XL. 4
5	47	100.0	170	2	AAR68888	Aar68888 Human thy
6	47	100.0	170	6	AAE37656	Aae37656 Bcl2 rela
7	47	100.0	185	4	ABB42045	Abb42045 Peptide #
8	47	100.0	185	4	AAM35847	Aam35847 Peptide #
9	47	100.0	185	4	ABB25656	Abb25656 Protein #
10	47	100.0	185	4	AAM75738	Aam75738 Human bon
11	47	100.0	185	4	AAM62926	Aam62926 Human bra
12	47	100.0	185	4	ABG57476	Abg57476 Human liv
13	47	100.0	185	5	ABG45220	Abg45220 Human pep
14	47	100.0	190	2	AAR68884	Aar68884 Chicken l
15	47	100.0	212	4	AAB20495	Aab20495 Human Bcl
16	47	100.0	212	4	AAG64285	Aag64285 Mutant bc
17	47	100.0	225	2	AAW19396	Aaw19396 "Deprenyl
18	47	100.0	233	2	AAR68887	Aar68887 Human thy
19	47	100.0	233	2	AAW05821	Aaw05821 Bcl-XL pr
20	47	100.0	233	2	AAW31530	Aaw31530 Human ant
21	47	100.0	233	3	AAY69969	Aay69969 Human Bcl
22	47	100.0	233	3	AAY83223	Aay83223 Bcl-x pol
23	47	100.0	233	4	AAB50538	Aab50538 Human Bcl
24	47	100.0	233	4	AAB73304	Aab73304 Mutant ra
25	47	100.0	233	4	AAB73303	Aab73303 Rat wild-
26	47	100.0	233	4	AAG64262	Aag64262 Human Bcl
27	47	100.0	233	4	AAB47515	Aab47515 Protein e
28	47	100.0	233	7	ADE62921	Ade62921 Rat Prote
29	47	100.0	233	7	ADE62493	Ade62493 Human Pro
30	47	100.0	233	7	ADE62491	Ade62491 Rat Prote
31	47	100.0	235	2	AAW48312	Aaw48312 Mouse BCL
32	47	100.0	236	6	ABR83558	Abr83558 TolA-BCL
33	47	100.0	237	5	ABG78480	Abg78480 Wild type
34	47	100.0	348	6	ABR83557	Abr83557 TolA-BCL
35	47	100.0	411	4	AAU00219	Aau00219 Bcl-Xl-DT
36	47	100.0	485	4	AAU00222	Aau00222 LFn-Bcl-X
37	41	87.2	229	5	AAO18222	Aao18222 Human Bcl
38	39	83.0	491	4	AAB82513	Aab82513 Amycolato
39	39	83.0	491	4	AAB46098	Aab46098 A. medite
40	36	76.6	491	5	AAO22165	Aao22165 Ramoplani
41	35	74.5	21	4	AAB88752	Aab88752 Human int
42	35	74.5	321	2	AAR48702	Aar48702 G-protein
43	35	74.5	321	2	AAW02674	Aaw02674 G-protein
44	35	74.5	601	2	AAR21931	Aar21931 D.melanog
45	35	74.5	601	4	ABB63318	Abb63318 Drosophil

ALIGNMENTS

RESULT 1
AAY29885
ID AAY29885 standard; peptide; 9 AA.
XX
AC AAY29885;
XX
DT 18-NOV-1999 (first entry)
XX
DE RY domain death inhibiting peptide Bcl-xl.
XX
KW RY domain; cell death; apoptosis; inhibition; regulation; Bcl-2;
KW neurodegenerative disorder; cerebral stroke; myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO9943701-A2.

XX
PD 02-SEP-1999.
XX
PF 16-FEB-1999; 99WO-IL000096.
XX
PR 24-FEB-1998; 98IL-00123429.
XX
PA (NSTN-) NST NEUROSURVIVAL TECHNOLOGIES LTD.
XX
PI Ziv I, Shirvan A;
XX
DR WPI; 1999-550858/46.
XX
PT New RY domain peptides, used for inhibiting cell death, particularly for
PT treating disorders, e.g. neurodegenerative disorders, cerebral strokes or
PT myocardial infarction.
XX
PS Claim 7; Page 23; 37pp; English.
XX
CC The present sequence represents a specifically claimed RY domain peptide
CC which inhibits cell death (apoptosis). The RY domain peptide can be used
CC for increasing the number of viable cells in a biological tissue or for
CC the enhancement of survival of biological cells. It can be used for
CC treating disorders caused by the inappropriate activation of apoptosis,
CC e.g. neurodegenerative disorders, cerebral strokes or myocardial
CC infarction
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 47; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 1 FELRYRRAF 9

RESULT 2
AAB37013
ID AAB37013 standard; peptide; 27 AA.
XX
AC AAB37013;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #13.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX

PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

Query Match 100.0%; Score 47; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.056;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 19 FELRYRRAF 27

RESULT 3
AAB37012
ID AAB37012 standard; peptide; 27 AA.
XX
AC AAB37012;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #12.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

  Query Match   100.0%; Score 47; DB 3; Length 27;
  Best Local Similarity 100.0%; Pred. No. 0.056;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   19 FELRYRRAF 27

RESULT 4
AAG79760
ID AAG79760 standard; protein; 152 AA.
XX
AC AAG79760;
XX
DT 01-APR-2003 (first entry)
XX
DE Bcl-XL.
XX
KW Bcl-2; Bcl-XL; anti-apoptosis; cell division; cancer; gossypol;
KW breast cancer; MDA-MB-231; hyperproliferative disease; cancer; AIDS;
KW degenerative condition; vascular disease; pathogen; bacteria; fungi;
KW virus; cell division.
XX
OS Homo sapiens.
XX
PN WO200297053-A2.
XX
PD 05-DEC-2002.
XX
PF 30-MAY-2002; 2002WO-US017206.
XX
PR 30-MAY-2001; 2001US-0293983P.
PR 30-MAY-2002; 2002US-00293983.
XX
PA (UNMI) UNIV MICHIGAN.
XX
PI Wang S, Yang D;
XX
DR WPI; 2003-140460/13.
XX
PT Modulating apoptosis or cell division in a tissue, treating a subject
PT overexpressing Bcl-2 family protein, and treating cancer in a subject, by
PT administering gossypol compound to the cell, tissue or subject.
XX
PS Example 1; Fig 1; 96pp; English.
XX

CC The sequences given in AAG79759-60 represent Bcl-2 and Bcl-XL. Bcl-2 and
CC Bcl-XL are anti-apoptotic proteins which could be monitored in the method
CC of the invention for modulating apoptosis in a cell, modulating cell
CC division in a tissue, treating a subject over expressing Bcl-2 family
CC protein, and treating cancer in a subject. The method comprises
CC administering a gossypol compound to the cell, tissue or subject.
CC Gossypol was shown to inhibit the breast cancer cell line MDA-MB-231 cell
CC growth with an IC50 value of 2.0 microM. The method of the invention is
CC useful for modulating apoptosis in a diseased cell (e.g.
CC hyperproliferative disease, cancer, AIDS, degenerative condition,
CC vascular disease and infection by pathogen e.g. bacteria, fungi or
CC virus), modulating cell division in a tissue, treating a subject having a
CC condition characterized by overexpression of Bcl-2 family protein, and
CC treating cancer in a subject, where the cancer includes cancer of breast,
CC prostate, skin, pancreas, colon, ovary, brain, liver, bladder, non-small
CC lung or cervix, or melanoma, carcinoma, myeloma, adrenal carcinoma,
CC lymphoma, leukemia, neuroblastoma, glioblastoma and head-neck cancer. The
CC cancer may be metastatic or resistant to cancer therapy including
CC chemotherapy, radiation therapy or hormone treatment
XX
SQ Sequence 152 AA;

Query Match 100.0%; Score 47; DB 6; Length 152;
Best Local Similarity 100.0%; Pred. No. 0.29;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 53 FELRYRRAF 61

RESULT 5
AAR68888
ID AAR68888 standard; protein; 170 AA.
XX
AC AAR68888;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1995 (first entry)
XX
DE Human thymus BCL-XS.
XX
KW BCL-XS; apoptosis; cell death; cancer; neurodegenerative disease;
KW autoimmune disease; Parkinson disease; amylotrophic lateral sclerosis;
KW multiple sclerosis.
XX
OS Homo sapiens.
XX
PN WO9500642-A1.
XX
PD 05-JAN-1995.
XX
PF 22-JUN-1994; 94WO-US007089.
XX
PR 22-JUN-1993; 93US-00081448.
XX
PA (ARCH-) ARCH DEV CORP.
PA (UNMI) UNIV MICHIGAN.
XX
PI Thompson CB, Boise LH, Nunez G;
XX
DR WPI; 1995-052079/07.
DR N-PSDB; AAQ81699.
XX
PT New poly-nucleotide encoding new poly-peptide(s) that modify apoptosis -
PT and related vectors, recombinant cells and antibodies, useful in assay
PT and for control of cell death in e.g. neuronal cells, lymphocytes and
PT cancers.
XX
PS Claim 3; Page 98; 127pp; English.
XX
CC This protein may be expressed recombinantly, particularly with pcmV
CC plasmids as vectors for expression in mammalian cell cultures. The
CC protein has particular application in cancer cells (failure of programmed
CC cell death (PCD)) or neurodegenerative and autoimmune diseases (premature
CC PCD), e.g. Parkinson's disease, amylotrophic lateral sclerosis and
CC multiple sclerosis. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 170 AA;

Query Match 100.0%; Score 47; DB 2; Length 170;
Best Local Similarity 100.0%; Pred. No. 0.33;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 97 FELRYRRAF 105

RESULT 6
AAE37656
ID AAE37656 standard; protein; 170 AA.
XX
AC AAE37656;
XX
DT 27-AUG-2003 (first entry)
XX
DE Bcl2 related protein #7.
XX
KW Bcl2 related protein; growth; protein expression.
XX
OS Unidentified.
XX
PN WO2003040374-A1.
XX
PD 15-MAY-2003.
XX
PF 02-NOV-2001; 2001WO-US045553.
XX
PR 02-NOV-2001; 2001WO-US045553.
XX
PA (CENZ) CENTOCOR INC.
XX
PI Lee C, Ly C, Moore G, Shi X;

XX
DR WPI; 2003-441576/41.
XX
PT New protein expression enhancing Bcl2 related nucleic acid for producing
PT commercially useful amounts of expressed protein, comprises a nucleic
PT acid that encodes an expressible protein or at least one Bcl2 related
PT protein.
XX
PS Disclosure; Page 53-54; 64pp; English.
XX
CC The invention relates to methods and compositions for enhanced protein
CC expression and/or growth of cultured cells using co-transcription of at
CC least one Bcl2 related protein encoding nucleic acid molecules. The
CC invention is useful in providing enhanced growth of and/or protein
CC production from cultured mammalian host cells used for the production of
CC commercially useful amounts of expressed protein. The present sequence is
CC Bcl2 related protein
XX
SQ Sequence 170 AA;

```
  Query Match             100.0%;  Score 47;  DB 6;  Length 170;
  Best Local Similarity   100.0%;  Pred. No. 0.33;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105
```

RESULT 7
ABB42045
ID ABB42045 standard; peptide; 185 AA.
XX
AC ABB42045;
XX
DT 04-FEB-2002 (first entry)
XX
DE Peptide #9551 encoded by human foetal liver single exon probe.
XX
KW Human; foetal liver; gene expression; single exon nucleic acid probe.
XX
OS Homo sapiens.
XX
PN WO200157277-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000669.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-483447/52.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human fetal liver.
XX
PS Claim 27; SEQ ID NO 34680; 639pp + Sequence Listing; English.
XX
CC The invention relates to a single exon nucleic acid probe for measuring
CC human gene expression in a sample derived from human foetal liver. The
CC single exon nucleic acid probes may be used for predicting, measuring and
CC displaying gene expression in samples derived from human fetal liver. The
CC present sequence is a peptide encoded by a single exon nucleic acid probe
CC of the invention. Note: The sequence data for this patent did not form
CC part of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

```
  Query Match             100.0%;  Score 47;  DB 4;  Length 185;
  Best Local Similarity   100.0%;  Pred. No. 0.35;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         94 FELRYRRAF 102
```

RESULT 8
AAM35847
ID AAM35847 standard; protein; 185 AA.
XX
AC AAM35847;
XX
DT 17-OCT-2001 (first entry)
XX
DE Peptide #9884 encoded by probe for measuring placental gene expression.
XX
KW Probe; microarray; human; placenta; antenatal diagnosis;
KW genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200157272-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000663.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.

PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488897/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human placenta.
XX
PS Claim 27; SEQ ID NO 36116; 654pp; English.
XX
CC The present invention relates to single exon nucleic acid probes (SENP:
CC see AAI31315-AAI57546). The present sequence is a peptide encoded by one
CC such probe. The probes are useful for producing a microarray for
CC predicting, measuring and displaying gene expression in samples derived
CC from human placenta. The probes are useful for antenatal diagnosis of
CC human genetic disorders
XX
SQ Sequence 185 AA;

  Query Match   100.0%; Score 47; DB 4; Length 185;
  Best Local Similarity   100.0%; Pred. No. 0.35;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   94 FELRYRRAF 102

RESULT 9
ABB25656
ID ABB25656 standard; protein; 185 AA.
XX
AC ABB25656;
XX
DT 23-JAN-2002 (first entry)
XX
DE Protein #7655 encoded by probe for measuring heart cell gene expression.
XX
KW Human; gene expression; heart; microarray; vascular system;
KW cardiovascular disease; hypertension; cardiac arrhythmia;
KW congenital heart disease.
XX
OS Homo sapiens.
XX
PN WO200157274-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000666.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488899/53.
XX
PT Single exon nucleic acid probes for analyzing gene expression in human
PT hearts.
XX
PS Claim 15; SEQ ID NO 27426; 530pp; English.
XX
CC The present invention relates to single exon nucleic acid probes for
CC measuring human gene expression in a sample derived from human heart (see
CC ABA21535-ABA41305). The present sequence is a protein encoded by one such
CC probe. The probes may be used for predicting, measuring and displaying
CC gene expression in samples derived from the human heart via microarrays.
CC By measuring gene expression, the probes are useful for predicting,
CC diagnosing, grading, staging, monitoring and prognosing diseases of the
CC human heart and vascular system e.g. cardiovascular disease,
CC hypertension, cardiac arrhythmias and congenital heart disease. Note: The
CC sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

  Query Match   100.0%; Score 47; DB 4; Length 185;
  Best Local Similarity   100.0%; Pred. No. 0.35;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   94 FELRYRRAF 102

RESULT 10
AAM75738
ID AAM75738 standard; protein; 185 AA.
XX
AC AAM75738;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human bone marrow expressed probe encoded protein SEQ ID NO: 36044.
XX
KW Human; bone marrow expressed exon; gene expression analysis; probe;
KW microarray; cancer; leukaemia; lymphoma; myeloma.
XX
OS Homo sapiens.
XX
PN WO200157276-A2.
XX

PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000668.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488900/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human bone marrow.
XX
PS Example 4; SEQ ID NO 36044; 658pp + Sequence Listing; English.
XX
CC The present invention provides a number of single exon nucleic acid
CC probes which are derived from genomic sequences expressed in the human
CC bone marrow. They can be used to measure gene expression in bone marrow
CC samples, which may enable the improved diagnosis and treatment of cancers
CC such as lymphoma, leukaemia and myeloma. The present sequence is a
CC protein encoded by one of the probes of the invention
XX
SQ Sequence 185 AA;

Query Match 100.0%; Score 47; DB 4; Length 185;
Best Local Similarity 100.0%; Pred. No. 0.35;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 94 FELRYRRAF 102

RESULT 11
AAM62926
ID AAM62926 standard; protein; 185 AA.
XX
AC AAM62926;
XX
DT 05-NOV-2001 (first entry)
XX
DE Human brain expressed single exon probe encoded protein SEQ ID NO: 35031.
XX
KW Human; brain expressed exon; gene expression analysis; probe; microarray;
KW Alzheimer's disease; multiple sclerosis; schizophrenia; epilepsy; cancer.
XX
OS Homo sapiens.
XX
PN WO200157275-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000667.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-483446/52.
XX
PT Single exon nucleic acid probes for analyzing gene expression in human
PT brains.
XX
PS Example 4; SEQ ID NO 35031; 650pp + Sequence Listing; English.
XX
CC The present invention provides a number of single exon nucleic acid
CC probes which are derived from genomic sequences expressed in the human
CC brain. They can be used to measure gene expression in brain cell samples,
CC which may enable the diagnosis and improved treatment of nervous system
CC diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
CC epilepsy and cancers. The present sequence is a protein encoded by one of
CC the probes of the invention
XX
SQ Sequence 185 AA;

Query Match 100.0%; Score 47; DB 4; Length 185;
Best Local Similarity 100.0%; Pred. No. 0.35;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 94 FELRYRRAF 102

RESULT 12
ABG57476
ID ABG57476 standard; peptide; 185 AA.
XX
AC ABG57476;
XX
DT 25-FEB-2003 (first entry)
XX
DE Human liver peptide, SEQ ID No 36124.
XX
KW Human; liver; cirrhosis; hyperlipoproteinaemia; hyperlipidaemia;
KW hypercholesterolaemia; coronary heart disease.
XX
OS Homo sapiens.

XX
PN WO200157273-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000664.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488898/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human adult liver.
XX
PS Claim 27; SEQ ID NO 36124; 658pp; English.
XX
CC The invention relates to a single exon nucleic acid probe (SENP) (I) for
CC measuring human gene expression in a sample derived from human adult
CC liver, comprising one of 13109 defined nucleotide sequences given in the
CC specification (or complements/ fragments). The probe hybridises at high
CC stringency to a nucleic acid molecule expressed in the human adult liver.
CC (I) may be used for predicting, measuring and displaying gene expression
CC in samples derived from human adult liver. The genes identified may be
CC involved in genetic liver diseases such as cirrhosis,
CC hyperlipoproteinaemia, hyperlipidaemia and hypercholesterolaemia which is
CC associated with coronary heart disease. ABG47348-ABG59930 represent human
CC liver single exon encoded peptides of the invention. Note: The sequence
CC information for this patent does not appear in the printed specification
CC but was obtained in electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 185 AA;

Query Match 100.0%; Score 47; DB 4; Length 185;
Best Local Similarity 100.0%; Pred. No. 0.35;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 FELRYRRAF 9
              |||||||||
Db         94 FELRYRRAF 102
```

RESULT 13
ABG45220
ID ABG45220 standard; peptide; 185 AA.
XX
AC ABG45220;
XX
DT 19-AUG-2002 (first entry)
XX
DE Human peptide encoded by genome-derived single exon probe SEQ ID 34885.
XX
KW Human; single exon probe; asthma; lung cancer; COPD; ILD;
KW chronic obstructive pulmonary disease; interstitial lung disease;
KW familial idiopathic pulmonary fibrosis; neurofibromatosis;
KW tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
KW Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
KW pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome;
KW pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
KW primary ciliary dyskinesis; pulmonary hypertension;
KW hyaline membrane disease.
XX
OS Homo sapiens.
XX
PN WO200186003-A2.
XX
PD 15-NOV-2001.
XX
PF 30-JAN-2001; 2001WO-US000665.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2002-114183/15.
XX
PT Spatially-addressable set of single exon nucleic acid probes, used to
PT measure gene expression in human lung samples.
XX
PS Claim 27; SEQ ID NO 34885; 634pp; English.
XX
CC The invention relates to a spatially-addressable set of single exon
CC nucleic acid probes for measuring gene expression in a sample derived
CC from human lung comprising single exon nucleic acid probes having one of
CC 12614 nucleic acid sequences mentioned in the specification, or their
CC complements or the 12387 open reading frames derived from the 12614
CC probes. Also included are a microarray comprising the novel set of probes
CC ; the novel set of probes which hybridise at high stringency to a nucleic
CC acid expressed in the human lung; measuring gene expression in a sample
CC derived from human lung, comprising (a) contacting the array with a
CC collection of detectably labeled nucleic acids derived from human lung
CC mRNA, and (b) measuring the label detectably bound to each probe of the
CC array; identifying exons in a eukaryotic genome, comprising (a)
CC algorithmically predicting at least one exon from genomic sequences of
CC the eukaryote; and (b) detecting specific hybridisation of detectably
CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,

```
CC   having a fragment identical to the predicted exon, the probe is included
CC   in the above mentioned microarray; assigning exons to a single gene,
CC   comprising (a) identifying exons from genomic sequence by the method
CC   above and (b) measuring the expression of each of the exons in several
CC   tissues and/or cell types using hybridisation to a single exon
CC   microarrays having a probe with the exon, where a common pattern of
CC   expression of the exons in the tissues and/or cell types indicates that
CC   the exons should be assigned to a single gene; a peptide comprising one
CC   of 12011 sequences, mentioned in the specification, or encoded by the
CC   probes/open reading frames (ORF). The probes are used for gene expression
CC   analysis, and for identifying exons in a gene, particularly using human
CC   lung derived mRNA and for the study of lung diseases such as asthma, lung
CC   cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
CC   disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
CC   tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
CC   Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
CC   histiocytosis, lymphangioleiomyomtosis, pulmonary alveolar proteinosis,
CC   Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary
CC   dyskinesis, pulmonary hypertension and hyaline membrane disease. The
CC   present sequence is a peptide/protein encoded by a single exon probe of
CC   the invention. Note: The sequence data for this patent did not form part
CC   of the printed specification, but was obtained in electronic format
CC   directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 185 AA;

  Query Match             100.0%;  Score 47;  DB 5;  Length 185;
  Best Local Similarity   100.0%;  Pred. No. 0.35;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         94 FELRYRRAF 102


RESULT 14
AAR68884
ID   AAR68884 standard; protein; 190 AA.
XX
AC   AAR68884;
XX
DT   16-OCT-2003  (revised)
DT   25-MAR-2003  (revised)
DT   10-AUG-1995  (first entry)
XX
DE   Chicken lymphoid BCL-X.
XX
KW   Chicken; bird; fowl; BCL-X; apoptosis; cell death; cancer;
KW   neurodegenerative disease; autoimmune disease; Parkinson's disease;
KW   amylotrophic lateral sclerosis; multiple sclerosis; oncogene.
XX
OS   Gallus gallus.
XX
PN   WO9500642-A1.
XX
PD   05-JAN-1995.
XX
PF   22-JUN-1994;   94WO-US007089.
XX
PR   22-JUN-1993;   93US-00081448.
XX
PA   (ARCH-) ARCH DEV CORP.
PA   (UNMI ) UNIV MICHIGAN.
XX
PI   Thompson CB,  Boise LH,  Nunez G;
XX
DR   WPI; 1995-052079/07.
DR   N-PSDB; AAQ81696.
XX
PT   New poly-nucleotide encoding new poly-peptide(s) that modify apoptosis -
PT   and related vectors, recombinant cells and antibodies, useful in assay
PT   and for control of cell death in e.g. neuronal cells, lymphocytes and
PT   cancers.
XX
PS   Claim 4; Page 87; 127pp; English.
XX
CC   This protein may be expressed recombinantly, particularly with pcmV
CC   plasmids as vectors for expression in mammalian cell cultures. The
CC   protein has particular application in cancer cells (failure of programmed
CC   cell death (PCD)) or neurodegenerative and autoimmune diseases (premature
CC   PCD), e.g. Parkinson's disease, amylotrophic lateral sclerosis and
CC   multiple sclerosis. (Updated on 25-MAR-2003 to correct PN field.)
CC   (Updated on 16-OCT-2003 to standardise OS field)
XX
SQ   Sequence 190 AA;

  Query Match             100.0%;  Score 47;  DB 2;  Length 190;
  Best Local Similarity   100.0%;  Pred. No. 0.36;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         93 FELRYRRAF 101


RESULT 15
AAB20495
ID   AAB20495 standard; protein; 212 AA.
XX
AC   AAB20495;
XX
DT   09-JUL-2001  (first entry)
XX
DE   Human Bcl-xL (transmembrane deleted).
XX
KW   Pablo; Bcl-xL; apoptosis; nervous system disorder; gene therapy; mutant;
KW   mutein.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130845-A1.
XX
PD   03-MAY-2001.
```

XX
PF 20-OCT-2000; 2000WO-US029149.
XX
PR 22-OCT-1999; 99US-00425501.
XX
PA (AMHP) AMERICAN HOME PROD CORP.
XX
PI Mark R, Young KH, Wood A;
XX
DR WPI; 2001-316325/33.
DR N-PSDB; AAF30926.
XX
PT New isolated Pablo polypeptides and polynucleotides that interact with
PT Bcl-xL, useful in regulating neural cellular processes, in chromosome
PT mapping, tissue typing, and forensic identification of a biological
PT sample.
XX
PS Example 1; Fig 11; 151pp; English.
XX
CC The present sequence is that of human Bcl-xL amino acids 1-211, i.e.
CC deleted of the last 22 amino acids, believed to be the transmembrane
CC domain. This was used as bait in a yeast two-hybrid screen designed to
CC identify proteins capable of binding Bcl-xL. A cDNA clone (see AAF30925)
CC encoding Pablo (see AAB20494), or pro-apoptotic Bcl-xL binding protein,
CC was identified in a human brain library. Pablo is pro-apoptotic in neural
CC cells but not in non-neuronal cells. It includes a novel Bcl-xL binding
CC domain which modulates apoptosis in neural cells. The invention provides
CC polypeptides which include Bcl-xL binding domains, novel Bcl-xL binding
CC domains of Pablo polypeptides, nucleic acids encoding such polypeptides,
CC and their uses especially for modulating apoptosis, particularly in
CC neural cells, as well as in the treatment or prevention of disorders that
CC can benefit from modulation of cell death
XX
SQ Sequence 212 AA;

  Query Match   100.0%; Score 47; DB 4; Length 212;
  Best Local Similarity 100.0%; Pred. No. 0.4;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

Search completed: March 30, 2004, 15:36:34
Job time : 50 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:36:40 ; Search time 11.6667 Seconds
                                           (without alignments)
                                           74.205 Million cell updates/sec

Title: US-09-622-058-1
Perfect score: 47
Sequence: 1 FELRYRRAF 9

Scoring table: BLOSUM62
                Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :   PIR_78:*
                1: pir1:*
                2: pir2:*
                3: pir3:*
                4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	47	100.0	170	2	I49055	bcl-x short - mous
2	47	100.0	176	2	I67435	gene bcl-xshort pr
3	47	100.0	190	2	A47537	apoptosis regulato
4	47	100.0	214	2	I49057	bcl-x transmembran
5	47	100.0	227	2	JE0203	apoptosis regulato
6	47	100.0	233	2	I49056	bcl-x long - mouse
7	47	100.0	233	2	B47537	apoptosis regulato
8	47	100.0	233	2	I67431	BCL-X-Long - rat
9	47	100.0	233	2	S51761	BCL-X protein - ra
10	37	78.7	491	2	T30590	alkylhalidase homo
11	35	74.5	601	2	S12004	tyramine receptor
12	35	74.5	601	2	JH0170	octopamine recepto
13	35	74.5	1241	2	JU0466	potassium transpor

14	34	72.3	321	2	S49369	mobilization prote
15	34	72.3	491	2	T44858	probable hydroxyla
16	33	70.2	550	2	AH2837	acetolactate synth
17	33	70.2	554	2	B97615	probable decarboxy
18	33	70.2	879	2	AC2542	cation-transportin
19	32	68.1	114	2	T23536	hypothetical prote
20	32	68.1	122	2	D87370	hypothetical prote
21	32	68.1	138	2	T14244	NADH2 dehydrogenas
22	32	68.1	203	2	B83606	hypothetical prote
23	32	68.1	373	2	T33389	hypothetical prote
24	32	68.1	421	2	S75494	hypothetical prote
25	32	68.1	468	1	A41242	interleukin-6 rece
26	32	68.1	681	2	H83044	2,4-dienoyl-CoA re
27	32	68.1	754	2	S52564	hypothetical prote
28	32	68.1	815	2	S67675	probable membrane
29	32	68.1	858	2	A71392	RNA polymerase pro
30	31	66.0	183	2	G70202	hypothetical prote
31	31	66.0	234	2	T35302	hypothetical prote
32	31	66.0	235	2	D75166	oxidoreductase PAB
33	31	66.0	266	2	A70823	probable methionin
34	31	66.0	283	2	B84479	hypothetical prote
35	31	66.0	318	2	B95883	probable transcrip
36	31	66.0	374	2	H88503	protein B0361.4 [i
37	31	66.0	484	2	S58868	G protein-coupled
38	31	66.0	514	2	D56849	dopamine receptor-
39	31	66.0	523	2	T40370	dna-(apurinic or a
40	31	66.0	548	2	F96663	hypothetical prote
41	31	66.0	636	2	T35042	probable transcrip
42	31	66.0	1050	2	A89769	hypothetical prote
43	31	66.0	1086	2	T33893	hypothetical prote
44	31	66.0	1270	2	T51227	related to verruco
45	31	66.0	3341	1	A42996	genome polyprotein

ALIGNMENTS

RESULT 1
I49055
bcl-x short - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 28-Jul-2003
C;Accession: I49055
R;Fang, W.; Rivard, J.J.; Mueller, D.L.; Behrens, T.W.
J. Immunol. 153, 4388-4398, 1994
A;Title: Cloning and molecular characterization of mouse bcl-x in B and T lymphocytes.
A;Reference number: I49055; MUID:95052604; PMID:7963517
A;Accession: I49055
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-170 <RES>
A;Cross-references: EMBL:U10100; NID:g506645; PIDN:AAA82172.1; PID:g506646
C;Genetics:
A;Gene: bcl-x
C;Superfamily: bcl apoptosis regulator, inhibitory type

Query Match 100.0%; Score 47; DB 2; Length 170;
Best Local Similarity 100.0%; Pred. No. 0.019;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 97 FELRYRRAF 105

RESULT 2
I67435
gene bcl-xshort protein - rat (fragment)
C;Species: Rattus sp. (rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 28-Jul-2003
C;Accession: I67435
R;Tilly, J.L.; Tilly, K.I.; Kenton, M.L.; Johnson, A.L.
Endocrinology 136, 232-241, 1995
A;Title: Expression of members of the bcl-2 gene family in the immature rat ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell apoptosis is associated with decreased bax and constitutive bcl-2 and bcl-xlong messenger ribonucleic acid levels.
A;Reference number: I53295; MUID:95129487; PMID:7828536
A;Accession: I67435
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-176 <RES>
A;Cross-references: GB:S78284; NID:g998483; PIDN:AAC60702.1; PID:g998484
C;Genetics:
A;Gene: bcl-x
C;Superfamily: bcl apoptosis regulator, inhibitory type

Query Match 100.0%; Score 47; DB 2; Length 176;
Best Local Similarity 100.0%; Pred. No. 0.02;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FELRYRRAF 9
|||||||||
Db 103 FELRYRRAF 111

RESULT 3
A47537
apoptosis regulator bcl-x - chicken
C;Species: Gallus gallus (chicken)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 28-Jul-2003
C;Accession: A47537
R;Boise, L.H.; Gonzalez-Garcia, M.; Postema, C.E.; Ding, L.; Lindsten, T.; Turka, L.A.; Mao, X.; Nunez, G.; Thompson, C.B.
Cell 74, 597-608, 1993
A;Title: bcl-x, a bcl-2-related gene that functions as a dominant regulator of apoptotic cell death.
A;Reference number: A47537; MUID:93364977; PMID:8358789
A;Accession: A47537
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-190 <BOI>

A;Cross-references: GB:Z23110; GB:L20120; NID:g510898; PIDN:CAA80657.1;
PID:g510899
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 47; DB 2; Length 190;
  Best Local Similarity   100.0%; Pred. No. 0.022;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   93 FELRYRRAF 101

RESULT 4
I49057
bcl-x transmembrane deleted - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 28-Jul-2003
C;Accession: I49057
R;Fang, W.; Rivard, J.J.; Mueller, D.L.; Behrens, T.W.
J. Immunol. 153, 4388-4398, 1994
A;Title: Cloning and molecular characterization of mouse bcl-x in B and T
lymphocytes.
A;Reference number: I49055; MUID:95052604; PMID:7963517
A;Accession: I49057
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-214 <RES>
A;Cross-references: EMBL:U10102; NID:g506649; PIDN:AAA82174.1; PID:g506650
C;Genetics:
A;Gene: bcl-x-long
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 47; DB 2; Length 214;
  Best Local Similarity   100.0%; Pred. No. 0.025;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

RESULT 5
JE0203
apoptosis regulator bcl-x isoform - human
N;Alternate names: h-bcl-xbeta
C;Species: Homo sapiens (man)
C;Date: 21-Aug-1998 #sequence_revision 21-Aug-1998 #text_change 28-Jul-2003
C;Accession: JE0203
R;Ban, J.; Eckhart, L.; Weninger, W.; Mildner, M.; Tschachler, E.
Biochem. Biophys. Res. Commun. 248, 147-152, 1998
A;Title: Identification of a human cDNA encoding a novel bcl-x isoform.
A;Reference number: JE0203; MUID:98340865; PMID:9675101
A;Accession: JE0203
A;Molecule type: mRNA
A;Residues: 1-227 <BAN>
A;Cross-references: GB:U72398; NID:g1622940; PIDN:AAB17354.1; PID:g1622941
C;Genetics:
A;Gene: bcl-x
A;Map position: 20
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 47; DB 2; Length 227;
  Best Local Similarity   100.0%; Pred. No. 0.026;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

RESULT 6
I49056
bcl-x long - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 28-Jul-2003
C;Accession: I49056; S52866
R;Fang, W.; Rivard, J.J.; Mueller, D.L.; Behrens, T.W.
J. Immunol. 153, 4388-4398, 1994
A;Title: Cloning and molecular characterization of mouse bcl-x in B and T
lymphocytes.
A;Reference number: I49055; MUID:95052604; PMID:7963517
A;Accession: I49056
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-233 <RES>
A;Cross-references: EMBL:U10101; NID:g506647; PIDN:AAA82173.1; PID:g506648
R;Kamesaki, H.; Michaud, G.Y.; Takatsu, K.; Okuma, M.
submitted to the EMBL Data Library, November 1994
A;Description: IL-5 inhibits anti-IgM-induced apoptosis in an immature B cell
line through inductin of bcl-Xl.
A;Reference number: S52866
A;Accession: S52866
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-233 <KAM>
A;Cross-references: EMBL:X83574; NID:g695622; PIDN:CAA58557.1; PID:g695623
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 47; DB 2; Length 233;
  Best Local Similarity   100.0%; Pred. No. 0.027;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

RESULT 7
B47537
apoptosis regulator bcl-xL - human
N;Alternate names: bcl-2-related protein
N;Contains: apoptosis regulator bcl-xS
C;Species: Homo sapiens (man)

C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 28-Jul-2003
C;Accession: B47537; C47537
R;Boise, L.H.; Gonzalez-Garcia, M.; Postema, C.E.; Ding, L.; Lindsten, T.;
Turka, L.A.; Mao, X.; Nunez, G.; Thompson, C.B.
Cell 74, 597-608, 1993
A;Title: bcl-x, a bcl-2-related gene that functions as a dominant regulator of
apoptotic cell death.
A;Reference number: A47537; MUID:93364977; PMID:8358789
A;Accession: B47537
A;Status: nucleic acid sequence not shown; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-233 <BOI>
A;Cross-references: GB:L20121; NID:g510900; PIDN:CAA80661.1; PID:g510901
A;Accession: C47537
A;Status: nucleic acid sequence not shown; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-69,'G',71-125,189-233 <BO2>
A;Cross-references: GB:L20122; NID:g623236; PIDN:CAA80662.1; PID:g623237
C;Genetics:
A;Gene: GDB:BCL2L
A;Cross-references: GDB:228079
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: alternative splicing; apoptosis
F;1-233/Product: apoptosis regulator bcl-xL #status predicted <MAT>
F;1-125,189-233/Product: apoptosis regulator bcl-xS #status predicted <MA2>

  Query Match   100.0%; Score 47; DB 2; Length 233;
  Best Local Similarity   100.0%; Pred. No. 0.027;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

RESULT 8
I67431
BCL-X-Long - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 28-Jul-2003
C;Accession: I67431
R;Tilly, J.L.; Tilly, K.I.; Kenton, M.L.; Johnson, A.L.
Endocrinology 136, 232-241, 1995
A;Title: Expression of members of the bcl-2 gene family in the immature rat
ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell
apoptosis is associated with decreased bax and constitutive bcl-2 and bcl-xlong
messenger ribonucleic acid levels.
A;Reference number: I53295; MUID:95129487; PMID:7828536
A;Accession: I67431
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-233 <RES>
A;Cross-references: EMBL:U34963; NID:g1004376; PIDN:AAA77686.1; PID:g1004377
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 47; DB 2; Length 233;
  Best Local Similarity   100.0%; Pred. No. 0.027;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

RESULT 9
S51761
BCL-X protein - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-May-1995 #sequence_revision 01-Sep-1995 #text_change 28-Jul-2003
C;Accession: S51761; S51762
R;Michaelidis, T.M.
submitted to the EMBL Data Library, November 1994
A;Reference number: S51761
A;Accession: S51761
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-233 <MIC>
A;Cross-references: EMBL:X82537; NID:g607176; PIDN:CAA57886.1; PID:g607177
A;Experimental source: embryonic; brain
A;Accession: S51762
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-125,189-233 <MI2>
A;Cross-references: EMBL:X82537; NID:g607176; PIDN:CAA57887.1; PID:g607178
A;Experimental source: embryonic; brain
A;Note: smaller form due to splicing
C;Genetics:
A;Introns: 125/3
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 47; DB 2; Length 233;
  Best Local Similarity   100.0%; Pred. No. 0.027;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FELRYRRAF 9
              |||||||||
Db   97 FELRYRRAF 105

Search completed: March 30, 2004, 15:41:32
Job time : 12.6667 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:31:30 ; Search time 8 Seconds
(without alignments)
58.579 Million cell updates/sec

Title: US-09-622-058-1
Perfect score: 47
Sequence: 1 FELRYRRAF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	47	100.0	229	1	BCLX_CHICK	Q07816 gallus gall
2	47	100.0	233	1	BCLX_HUMAN	Q07817 homo sapien
3	47	100.0	233	1	BCLX_MOUSE	Q64373 mus musculu
4	47	100.0	233	1	BCLX_PIG	O77737 sus scrofa
5	47	100.0	233	1	BCLX_RAT	P53563 rattus norv
6	43	91.5	204	1	AR11_XENLA	Q91828 xenopus lae
7	35	74.5	601	1	OAR_DROME	P22270 drosophila
8	35	74.5	1241	1	TRK1_SACBA	P28569 saccharomyc
9	34	72.3	193	1	BCLW_HUMAN	Q92843 homo sapien
10	34	72.3	193	1	BCLW_MOUSE	P70345 mus musculu
11	32	68.1	204	1	PFAP_LEPBO	Q48513 leptospira
12	32	68.1	228	1	AR1_XENLA	Q91827 xenopus lae
13	32	68.1	344	1	CYS5_DICDI	P54640 dictyosteli
14	32	68.1	434	1	LPG1_LEIDO	Q05889 leishmania
15	32	68.1	442	1	CYS4_DICDI	P54639 dictyosteli
16	32	68.1	462	1	IL6A_RAT	P22273 rattus norv
17	32	68.1	467	1	IL6A_PIG	O18796 sus scrofa
18	32	68.1	468	1	IL6A_HUMAN	P08887 homo sapien
19	32	68.1	815	1	CC53_YEAST	Q12018 saccharomyc
20	32	68.1	857	1	V2A_CMVNT	O40977 cucumber mo
21	32	68.1	858	1	V2A_CMVAS	O39436 cucumber mo
22	32	68.1	858	1	V2A_CMVIX	Q66117 cucumber mo
23	32	68.1	858	1	V2A_CMVK	Q86783 cucumber mo
24	31	66.0	245	1	RNC_BACAA	Q81wi8 bacillus an
25	31	66.0	245	1	RNC_BACCR	Q819v8 bacillus ce
26	31	66.0	374	1	YMP4_CAEEL	Q10948 caenorhabdi
27	31	66.0	484	1	OAR1_LOCMI	Q25321 locusta mig
28	31	66.0	484	1	OAR2_LOCMI	Q25322 locusta mig
29	31	66.0	490	1	C7DB_LOTJA	O22307 lotus japon
30	31	66.0	3341	1	POLG_MCFA	P33515 m genome po
31	30	63.8	64	1	RL29_SYNP6	O24697 synechococc
32	30	63.8	216	1	YD82_RHIME	Q92qe8 rhizobium m
33	30	63.8	220	1	Y304_BRUME	Q8yd73 brucella me
34	30	63.8	220	1	Y3J1_BRUSU	Q8fv59 brucella su
35	30	63.8	229	1	BCL2_BOVIN	O02718 bos taurus
36	30	63.8	236	1	BCL2_CRILO	Q9jjv8 cricetulus
37	30	63.8	236	1	BCL2_MOUSE	P10417 mus musculu
38	30	63.8	236	1	BCL2_RAT	P49950 rattus norv
39	30	63.8	239	1	BCL2_HUMAN	P10415 homo sapien
40	30	63.8	241	1	RT10_ARATH	P42797 arabidopsis
41	30	63.8	341	1	SYFA_CHLMU	Q9pl83 chlamydia m
42	30	63.8	351	1	FEN_AERPE	Q9yfy5 aeropyrum p
43	30	63.8	389	1	O85C_DROME	Q9vhq6 drosophila
44	30	63.8	423	1	Y294_PASMU	Q9cnx7 pasteurella
45	30	63.8	511	1	SYFA_METTH	O26837 methanobact

ALIGNMENTS

RESULT 1
BCLX_CHICK
ID BCLX_CHICK STANDARD; PRT; 229 AA.
AC Q07816; Q98908;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN BCL2L1 OR BCLX OR BCL-X.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A. (ISOFORM SHORT).
RX MEDLINE=93364977; PubMed=8358789;
RA Boise L.H., Gonzalez-Garcia M., Postema C.E., Ding L., Lindsten T.,
RA Turka L.A., Mao X., Nunez G., Thompson C.B.;
RT "bcl-x, a bcl-2-related gene that functions as a dominant regulator
RT of apoptotic cell death.";
RL Cell 74:597-608(1993).
RN [2]
RP SEQUENCE FROM N.A. (ISOFORM LONG).

```
RC   STRAIN=Hubbard White Mountain; TISSUE=Testis;
RX   MEDLINE=97264485; PubMed=9110311;
RA   Vilagrasa X., Mezquita C., Mezquita J.;
RT   "Differential expression of bcl-2 and bcl-x during chicken
RT   spermatogenesis.";
RL   Mol. Reprod. Dev. 47:26-29(1997).
CC   -!- FUNCTION: Dominant regulator of apoptotic cell death. The long
CC       form displays cell death repressor activity, whereas the short
CC       isoform promotes apoptosis (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=Q07816-1; Sequence=Displayed;
CC       Name=Short;
CC         IsoId=Q07816-2; Sequence=VSP_000514;
CC   -!- TISSUE SPECIFICITY: Highest expression in organs with lymphoid
CC       development.
CC   -!- DOMAIN: BH4 domain seems to be involved in the anti-apoptotic
CC       function. Intact BH1 and BH2 domains are required for anti-
CC       apoptotic activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Z23110; CAA80657.1; -.
DR   EMBL; U26645; AAB07677.1; -.
DR   PIR; A47537; A47537.
DR   HSSP; P53563; 1AF3.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Transmembrane; Alternative splicing.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       82     96       BH3.
FT   DOMAIN      125    144       BH1.
FT   DOMAIN      176    191       BH2.
FT   TRANSMEM    206    223       POTENTIAL.
FT   VARSPLIC    185    229       ERFVDLYGNNAAAELRKGQETFNKWLLTGATVAGVLLLGSL
FT                                LSRK -> VRTALP (in isoform Short).
FT                                /FTId=VSP_000514.
SQ   SEQUENCE   229 AA;  25733 MW;  A97D3A4D04C0E9DA CRC64;

  Query Match             100.0%;  Score 47;  DB 1;  Length 229;
  Best Local Similarity   100.0%;  Pred. No. 0.0095;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         93 FELRYRRAF 101


RESULT 2
BCLX_HUMAN
ID   BCLX_HUMAN     STANDARD;      PRT;   233 AA.
AC   Q07817; Q92976;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BCL2L OR BCLX.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(S)).
RX   MEDLINE=93364977; PubMed=8358789;
RA   Boise L.H., Gonzalez-Garcia M., Postema C.E., Ding L., Lindsten T.,
RA   Turka L.A., Mao X., Nunez G., Thompson C.B.;
RT   "bcl-x, a bcl-2-related gene that functions as a dominant regulator
RT   of apoptotic cell death.";
RL   Cell 74:597-608(1993).
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORM X(BETA)).
RA   Inohara N., Ohta S.;
RL   Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A. (ISOFORM X(L)).
RC   TISSUE=Lung;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
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RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [4]
RP   MUTAGENESIS OF GLY-138, AND HETERODIMERIZATION.
RX   MEDLINE=95372373; PubMed=7644501;
RA   Sedlak T.W., Oltvai Z.N., Yang E., Wang K., Boise L.H., Thompson C.B.,
RA   Korsmeyer S.J.;
RT   "Multiple Bcl-2 family members demonstrate selective dimerizations
RT   with Bax.";
RL   Proc. Natl. Acad. Sci. U.S.A. 92:7834-7838(1995).
RN   [5]
RP   MUTAGENESIS OF BH1 AND BH2 DOMAINS.
RX   MEDLINE=96170038; PubMed=8596636;
RA   Cheng E.H.-Y., Levine B., Boise L.H., Thompson C.B., Hardwick J.M.,
RA   Korsmeyer S.J.;
RT   "Bax-independent inhibition of apoptosis by Bcl-XL.";
RL   Nature 379:554-556(1996).
RN   [6]
RP   INTERACTION WITH SIVA.
RX   MEDLINE=22008092; PubMed=12011449;
RA   Xue L., Chu F., Cheng Y., Sun X., Borthakur A., Ramarao M., Pandey P.,
RA   Wu M., Schlossman S.F., Prasad K.V.S.;
RT   "Siva-1 binds to and inhibits BCL-X(L)-mediated protection against UV
RT   radiation-induced apoptosis.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:6925-6930(2002).
RN   [7]
RP   STRUCTURE BY NMR OF 1-209.
RX   MEDLINE=97172562; PubMed=9020082;
RA   Sattler M., Liang H., Nettesheim D., Meadows R.P., Harlan J.E.,
RA   Eberstadt M., Yoon H.S., Shuker S.B., Chang B.S., Minn A.J.,
RA   Thompson C.B., Fesik S.W.;
RT   "Structure of Bcl-xL-Bak peptide complex: recognition between
RT   regulators of apoptosis.";
RL   Science 275:983-986(1997).
RN   [8]
RP   X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS), AND STRUCTURE BY NMR OF 1-209.
RX   MEDLINE=96256675; PubMed=8692274;
RA   Muchmore S.W., Sattler M., Liang H., Meadows R.P., Harlan J.E.,
RA   Yoon H.S., Nettesheim D., Chang B.S., Thompson C.B., Wong S.L.,
RA   Ng S.L., Fesik S.W.;
RT   "X-ray and NMR structure of human Bcl-xL, an inhibitor of programmed
RT   cell death.";
RL   Nature 381:335-341(1996).
RN   [9]
RP   CLEAVAGE BY CASPASES, AND MUTAGENESIS OF ASP-61.
RX   MEDLINE=98118550; PubMed=9435230;
RA   Clem R.J., Cheng E.H.-Y., Karp C.L., Kirsch D.G., Ueno K.,
RA   Takahashi A., Kastan M.B., Griffin D.E., Earnshaw W.C., Veliuona M.A.,
RA   Hardwick J.M.;
RT   "Modulation of cell death by Bcl-xL through caspase interaction.";
RL   Proc. Natl. Acad. Sci. U.S.A. 95:554-559(1998).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1. Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC       The Bcl-X(S) isoform promotes apoptosis.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2.
CC       Heterodimerization with BAX does not seem to be required for anti-
CC       apoptotic activity. Isoform Bcl-X(L) binds to Siva isoform 1.
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC       Name=Bcl-X(L);
CC         IsoId=Q07817-1; Sequence=Displayed;
CC       Name=Bcl-X(S);
CC         IsoId=Q07817-2; Sequence=VSP_000515;
CC       Name=Bcl-X(beta);
CC         IsoId=Q07817-3; Sequence=VSP_000516;
CC   -!- TISSUE SPECIFICITY: Bcl-X(S) is expressed at high levels in cells
CC       that undergo a high rate of turnover, such as developing
CC       lymphocytes. In contrast, Bcl-X(L) is found in tissues containing
CC       long-lived postmitotic cells, such as adult brain.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; Z23116; CAA80662.1; -.
DR   EMBL; Z23115; CAA80661.1; -.
DR   EMBL; U72398; AAB17354.1; -.
DR   EMBL; BC019307; AAH19307.1; -.
DR   PIR; B47537; B47537.
DR   PIR; JE0203; JE0203.
DR   PDB; 1BXL; 29-OCT-97.
DR   PDB; 1LXL; 21-APR-97.
DR   PDB; 1MAZ; 21-APR-97.
DR   PDB; 1G5J; 07-FEB-01.
DR   PDB; 1G5M; 21-MAR-01.
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DR   PDB; 1GJH; 13-JUN-01.
DR   Genew; HGNC:992; BCL2L1.
DR   MIM; 600039; -.
DR   GO; GO:0005739; C:mitochondrion; TAS.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; TAS.
DR   GO; GO:0006916; P:anti-apoptosis; TAS.
DR   GO; GO:0008637; P:apoptotic mitochondrial changes; TAS.
DR   GO; GO:0008634; P:negative regulation of survival gene products; TAS.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Alternative splicing; Transmembrane;
KW   3D-structure.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
FT   SITE         61     62       CLEAVAGE (BY CASPASE-1).
FT   VARSPLIC    126    188       Missing (in isoform Bcl-X(S)).
FT                                /FTId=VSP_000515.
FT   VARSPLIC    189    233       DTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVLLGSL
FT                                FSRK -> VRTKPLVCPFSLASGQRSPTALLLYLFLLCWVI
FT                                VGDVDS (in isoform Bcl-X(beta)).
FT                                /FTId=VSP_000516.
FT   MUTAGEN      61     61       D->A: NO CLEAVAGE BY CASPASE-1 NOR BY
FT                                CASPASE-3.
FT   MUTAGEN     131    133       FRD->VRA: NO HETERODIMERIZATION WITH BAX.
FT   MUTAGEN     135    137       VNW->AIL: LOSS OF ANTI-APOPTOTIC
FT                                ACTIVITY.
FT   MUTAGEN     138    140       GRI->ELN: LOSS OF ANTI-APOPTOTIC
FT                                ACTIVITY.
FT   MUTAGEN     138    138       G->A: NO HETERODIMERIZATION WITH BAX.
FT   MUTAGEN     148    148       G->E: NO HETERODIMERIZATION WITH BAX.
FT   MUTAGEN     156    156       D->A: NO EFECT ON CASPASE-1 CLEAVAGE.
FT   MUTAGEN     176    176       D->A: NO EFECT ON CASPASE-1 CLEAVAGE.
FT   MUTAGEN     188    189       WD->GA: REDUCES ANTI-APOPTOTIC ACTIVITY

  Query Match           100.0%;  Score 47;  DB 1;  Length 233;
  Best Local Similarity  100.0%;  Pred. No. 0.0097;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105
```

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RESULT 3
BCLX_MOUSE
ID   BCLX_MOUSE     STANDARD;      PRT;   233 AA.
AC   Q64373; Q60657; Q60658; Q61338;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BCL2L OR BCLX.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=2A4B;
RA   Kamesaki H., Michaud G.Y., Takatsu K., Okuma M.;
RL   Submitted (MAR-1995) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(BETA)).
RC   STRAIN=C57BL/6; TISSUE=Brain;
RX   MEDLINE=95331139; PubMed=7607090;
RA   Gonzalez-Garcia M., Perez-Ballestero R., Ding L., Duan L., Boise L.H.,
RA   Thompson C.B., Nunez G.;
RT   "bcl-XL is the major bcl-x mRNA form expressed during murine
RT   development and its product localizes to mitochondria.";
RL   Development 120:3033-3042(1994).
RN   [3]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L); X(S) AND X(DELTA-TM)).
RC   TISSUE=Pre-B cell;
RX   MEDLINE=95052604; PubMed=7963517;
RA   Fang W., Rivard J.J., Mueller D.L., Behrens T.W.;
RT   "Cloning and molecular characterization of mouse bcl-x in B and T
RT   lymphocytes.";
RL   J. Immunol. 153:4388-4398(1994).
RN   [4]
RP   SEQUENCE FROM N.A. (ISOFORM X(BETA)).
RC   STRAIN=C57BL/6 X CBA; TISSUE=Thymus;
RX   MEDLINE=98051053; PubMed=9390687;
RA   Yang X.-F., Weber G.F., Cantor H.;
RT   "A novel Bcl-x isoform connected to the T cell receptor regulates
RT   apoptosis in T cells.";
RL   Immunity 7:629-639(1997).
RN   [5]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97289584; PubMed=9144489;
RA   Grillot D.A., Gonzalez-Garcia M., Ekhterae D., Duan L., Inohara N.,
RA   Ohta S., Seldin M.F., Nunez G.;
RT   "Genomic organization, promoter region analysis, and chromosome
RT   localization of the mouse bcl-x gene.";
RL   J. Immunol. 158:4750-4757(1997).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1. Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
```

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CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC       The Bcl-X(S) isoform promotes apoptosis.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2 (By
CC       similarity). Heterodimerization with BAX does not seem to be
CC       required for anti-apoptotic activity (By similarity). Isoform Bcl-
CC       X(L) binds to Siva isoform 1 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope for Bcl-X(L). Cytoplasmic for Bcl-X(delta-TM).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=4;
CC       Name=BCX-X(L);
CC         IsoId=Q64373-1; Sequence=Displayed;
CC       Name=BCL-X(S);
CC         IsoId=Q64373-2; Sequence=VSP_000517;
CC       Name=BCL-X(beta);
CC         IsoId=Q64373-3; Sequence=VSP_000518;
CC       Name=BCL-X(delta-TM);
CC         IsoId=Q64373-4; Sequence=VSP_000519;
CC   -!- TISSUE SPECIFICITY: Widely expressed, with highest levels in the
CC       brain, thymus, bone marrow, and kidney. Bcl-X(L) and Bcl-X(delta-
CC       TM) expression is enhanced in B and T lymphocytes that have been
CC       activated.
CC   -!- DEVELOPMENTAL STAGE: Bcl-X(beta) is expressed in both embryonal
CC       and postnatal tissues, whereas Bcl-X(L) is predominantly found in
CC       postnatal tissues.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis (By
CC       similarity). The cleaved protein, lacking the BH4 domain, has pro-
CC       apoptotic activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X83574; CAA58557.1; -.
DR   EMBL; L35049; AAA51039.1; -.
DR   EMBL; L35048; AAA51040.1; -.
DR   EMBL; U10102; AAA82174.1; -.
DR   EMBL; U10101; AAA82173.1; -.
DR   EMBL; U10100; AAA82172.1; -.
DR   EMBL; U51279; AAC53460.1; -.
DR   EMBL; U78031; AAB96881.1; -.
DR   EMBL; U78030; AAB96881.1; JOINED.
DR   PIR; I49055; I49055.
DR   PIR; I49056; I49056.
DR   PIR; I49057; I49057.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Alternative splicing; Transmembrane.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
FT   VARSPLIC    126    188       Missing (in isoform BCL-X(S)).
FT                                /FTId=VSP_000517.
FT   VARSPLIC    189    233       DTFVDLYGNNAAAESRKGQERFNRWFLTGMTVAGVVVLLGSL
FT                                FSRK -> VRTTPLVCPPLACVSLLCEHP (in isoform
FT                                BCL-X(beta)).
FT                                /FTId=VSP_000518.
FT   VARSPLIC    194    233       LYGNNAAAESRKGQERFNRWFLTGMTVAGVVVLLGSLFSRK
FT                                -> GHDCGWCGSAGLTLQSEVTRH (in isoform
FT                                BCL-X(delta-TM)).
FT                                /FTId=VSP_000519.
SQ   SEQUENCE   233 AA;  26132 MW;  24D2AC79887E072E CRC64;

  Query Match             100.0%;  Score 47;  DB 1;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.0097;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 4
BCLX_PIG
ID   BCLX_PIG       STANDARD;      PRT;   233 AA.
AC   O77737;
DT   15-JUL-1999 (Rel. 38, Created)
DT   15-JUL-1999 (Rel. 38, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BLC2L OR BCLX.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
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OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99171363; PubMed=10072723;
RA   Bartling B., Hoffmann J., Holtz J., Schulz R., Heusch G., Darmer D.;
RT   "Quantification of cardioprotective gene expression in porcine
RT   short-term hibernating myocardium.";
RL   J. Mol. Cell. Cardiol. 31:147-158(1999).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1.Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2 (By
CC       similarity). Heterodimerization with BAX does not seem to be
CC       required for anti-apoptotic activity (By similarity). Isoform Bcl-
CC       X(L) binds to Siva isoform 1 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis (By
CC       similarity). The cleaved protein, lacking the BH4 domain, has pro-
CC       apoptotic activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; AJ001203; CAA04597.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Transmembrane.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
SQ   SEQUENCE   233 AA;  26061 MW;  18BF6FA044191282 CRC64;

  Query Match             100.0%;  Score 47;  DB 1;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.0097;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 5
BCLX_RAT
ID   BCLX_RAT       STANDARD;      PRT;   233 AA.
AC   P53563; P70613; P70614; Q62678; Q62836; Q64087; Q64128;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-X (Bcl-2-like 1 protein).
GN   BCL2L1 OR BLC2L OR BCLX.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(S)).
RC   TISSUE=Brain;
RA   Michaelidis T.M.;
RL   Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RA   Wesselingh S.L., David G.L., Choi S., Veliuona M., Hardwick J.M.;
RL   Submitted (JUN-1995) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(BETA)).
RC   TISSUE=Thymus;
RX   MEDLINE=96278736; PubMed=8662675;
RA   Shiraiwa N., Inohara N., Okada S., Yuzaki M., Shoji S.-I., Ohta S.;
RT   "An additional form of rat Bcl-x, Bcl-xbeta, generated by an
RT   unspliced RNA, promotes apoptosis in promyeloid cells.";
RL   J. Biol. Chem. 271:13258-13265(1996).
RN   [4]
RP   SEQUENCE FROM N.A. (ISOFORMS X(L) AND X(S)).
RC   STRAIN=Sprague-Dawley; TISSUE=Ovary;
RX   MEDLINE=95129487; PubMed=7828536;
RA   Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
RT   "Expression of members of the bcl-2 gene family in the immature rat
RT   ovary: equine chorionic gonadotropin-mediated inhibition of granulosa
RT   cell apoptosis is associated with decreased bax and constitutive
RT   bcl-2 and bcl-xlong messenger ribonucleic acid levels.";
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RL   Endocrinology 136:232-241(1995).
RN   [5]
RP   X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS).
RX   MEDLINE=98010630; PubMed=9346936;
RA   Aritomi M., Kunishima N., Inohara N., Ishibashi Y., Ohta S.,
RA   Morikawa K.;
RT   "Crystal structure of rat Bcl-xL. Implications for the function of
RT   the Bcl-2 protein family.";
RL   J. Biol. Chem. 272:27886-27892(1997).
CC   -!- FUNCTION: Potent inhibitor of cell death. Isoform Bcl-X(L) anti-
CC       apoptotic activity is inhibited by association with SIVA isoform
CC       1. Inhibits activation of caspases (By similarity). Appears to
CC       regulate cell death by blocking the voltage-dependent anion
CC       channnel (VDAC) by binding to it and preventing the release of the
CC       caspase activator, cytochrome c, from the mitochondrial membrane.
CC       The Bcl-X(S) and Bcl-X(beta) isoforms promote apoptosis.
CC   -!- SUBUNIT: Bcl-X(L) forms heterodimers with BAX, BAK and Bcl-2 (By
CC       similarity). Heterodimerization with BAX does not seem to be
CC       required for anti-apoptotic activity (By similarity). Isoform Bcl-
CC       X(L) binds to Siva isoform 1 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Mitochondrial membranes and perinuclear
CC       envelope (By similarity).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC       Name=Bcl-X(L);
CC         IsoId=P53563-1; Sequence=Displayed;
CC       Name=Bcl-X(S);
CC         IsoId=P53563-2; Sequence=VSP_000520;
CC       Name=Bcl-X(beta);
CC         IsoId=P53563-3; Sequence=VSP_000521;
CC   -!- TISSUE SPECIFICITY: Expressed in most tissues. Bcl-X(beta) is
CC       specifically expressed in cerebellum, heart, and thymus. In the
CC       ovary, the predominant form is Bcl-X(L), with a small but
CC       detectable level of Bcl-X(S).
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity.
CC       The BH1 and BH2 domains are required for both heterodimerization
CC       with other Bcl2 family members and for repression of cell death.
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X82537; CAA57886.1; -.
DR   EMBL; X82537; CAA57887.1; -.
DR   EMBL; U10579; AAA19257.1; -.
DR   EMBL; U72350; AAB17353.1; -.
DR   EMBL; U72349; AAB17352.1; -.
DR   EMBL; U34963; AAA77686.1; -.
DR   EMBL; S76513; AAC60701.2; ALT_INIT.
DR   EMBL; S78284; AAC60702.1; -.
DR   PIR; I67431; I67431.
DR   PIR; S51761; S51761.
DR   PDB; 1AF3; 07-JUL-97.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Mitochondrion; Alternative splicing; Transmembrane;
KW   3D-structure.
FT   DOMAIN        4     24       BH4.
FT   DOMAIN       86    100       BH3.
FT   DOMAIN      129    148       BH1.
FT   DOMAIN      180    195       BH2.
FT   TRANSMEM    210    226       POTENTIAL.
FT   VARSPLIC    126    188       Missing (in isoform Bcl-X(S)).
FT                                /FTId=VSP_000520.
FT   VARSPLIC    189    233       DTFVDLYGNNAAAESRKGQERFNRWFLTGMTVAGVVLLGSL
FT                                FSRK -> VRTTPLVCPPLVCLSSVEIPNCPFWSPGMVVED
FT                                IDYSGDIPGLL (in isoform Bcl-X(beta)).
FT                                /FTId=VSP_000521.
FT   CONFLICT      6      6       R -> Q (IN REF. 1).
FT   CONFLICT     12     12       F -> S (IN REF. 2).
FT   CONFLICT     64     64       A -> E (IN REF. 2).
FT   CONFLICT     81     81       I -> L (IN REF. 4).
FT   CONFLICT    119    119       A -> V (IN REF. 4).
FT   CONFLICT    143    144       FF -> SS (IN REF. 4).
FT   CONFLICT    199    199       A -> T (IN REF. 4).
FT   CONFLICT    201    201       A -> P (IN REF. 4).
FT   HELIX         4     19
FT   TURN         20     21
FT   TURN         25     28
FT   TURN         82     83
FT   HELIX        84    100
FT   HELIX       106    112
FT   TURN        116    117
FT   HELIX       120    127
FT   HELIX       128    131
FT   TURN        132    133
FT   HELIX       137    156
FT   TURN        157    158
FT   TURN        160    161
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FT   HELIX       162    177
FT   TURN        178    178
FT   HELIX       179    184
FT   TURN        185    186
FT   HELIX       187    195
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  Query Match           100.0%;  Score 47;  DB 1;  Length 233;
  Best Local Similarity  100.0%;  Pred. No. 0.0097;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


Search completed: March 30, 2004, 15:38:21
Job time : 8 secs
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                                GenCore version 5.1.6
                          Copyright (c) 1993 - 2004  Compugen Ltd.

OM protein - protein search, using sw model

Run on:         March 30, 2004, 15:32:10 ; Search time 33 Seconds
                                           (without alignments)
                                           86.050 Million cell updates/sec

Title:          US-09-622-058-1
Perfect score:  47
Sequence:       1 FELRYRRAF 9

Scoring table:  BLOSUM62
                Gapop 10.0 , Gapext 0.5

Searched:       1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters:      1017041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :        SPTREMBL_25:*
                 1:  sp_archea:*
                 2:  sp_bacteria:*
                 3:  sp_fungi:*
                 4:  sp_human:*
                 5:  sp_invertebrate:*
                 6:  sp_mammal:*
                 7:  sp_mhc:*
                 8:  sp_organelle:*
                 9:  sp_phage:*
                 10:  sp_plant:*
                 11:  sp_rodent:*
                 12:  sp_virus:*
                 13:  sp_vertebrate:*
                 14:  sp_unclassified:*
                 15:  sp_rvirus:*
                 16:  sp_bacteriap:*
                 17:  sp_archeap:*

     Pred. No. is the number of results predicted by chance to have a
     score greater than or equal to the score of the result being printed,
     and is derived by analysis of the total score distribution.

                                    SUMMARIES

                      %
Result                Query
   No.    Score      Match Length DB  ID                          Description
  ------------------------------------------------------------------------------
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1	47	100.0	89	13	Q8UWJ1	Q8uwj1 gallus gall
2	47	100.0	125	4	Q9H1R5	Q9h1r5 homo sapien
3	47	100.0	170	11	Q9WUI5	Q9wui5 rattus norv
4	47	100.0	180	6	Q9BDX7	Q9bdx7 bos taurus
5	47	100.0	180	6	Q9BDD5	Q9bdd5 bos taurus
6	47	100.0	188	4	Q9H1R6	Q9h1r6 homo sapien
7	47	100.0	188	11	Q9QWX2	Q9qwx2 mus musculu
8	47	100.0	217	11	Q99N35	Q99n35 mus musculu
9	47	100.0	219	11	Q99N36	Q99n36 mus musculu
10	47	100.0	233	6	Q9N1A2	Q9n1a2 sus scrofa
11	47	100.0	233	6	Q9MZS7	Q9mzs7 ovis aries
12	47	100.0	233	6	Q8SQ42	Q8sq42 felis silve
13	47	100.0	233	6	Q9MYW4	Q9myw4 oryctolagus
14	47	100.0	233	11	O35844	O35844 mus musculu
15	47	100.0	235	11	O35843	O35843 mus musculu
16	47	100.0	284	11	Q7TS62	Q7ts62 rattus norv
17	43	91.5	204	13	Q90ZH2	Q90zh2 xenopus lae
18	41	87.2	238	13	Q90Z98	Q90z98 brachydanio
19	39	83.0	491	2	O87676	O87676 amycolatops
20	37	78.7	491	2	P96557	P96557 amycolatops
22	35	74.5	601	5	Q95YF4	Q95yf4 drosophila
23	34	72.3	178	11	Q9CYW5	Q9cyw5 mus musculu
24	34	72.3	178	11	Q8CFR2	Q8cfr2 mus musculu
25	34	72.3	193	11	O88996	O88996 rattus norv
26	34	72.3	219	11	Q7TS60	Q7ts60 rattus norv
27	34	72.3	321	2	Q57116	Q57116 campylobact
28	34	72.3	362	2	Q8RN02	Q8rn02 amycolatops
29	34	72.3	390	16	Q8A0Z0	Q8a0z0 bacteroides
30	34	72.3	489	2	Q7WZ81	Q7wz81 nonomuraea
31	34	72.3	491	2	P96563	P96563 amycolatops
32	34	72.3	497	2	Q93N83	Q93n83 streptomyce
33	34	72.3	524	1	Q8U4T9	Q8u4t9 halobacteri
34	34	72.3	548	16	Q92NJ5	Q92nj5 rhizobium m
35	33	70.2	173	16	Q82AN8	Q82an8 streptomyce
36	33	70.2	372	10	Q9LU92	Q9lu92 arabidopsis
37	33	70.2	554	16	Q8UDJ7	Q8udj7 agrobacteri
38	33	70.2	715	2	Q8GCK1	Q8gck1 mycoplasma
39	33	70.2	720	5	Q9N6A7	Q9n6a7 leishmania
40	33	70.2	879	16	Q8ZS90	Q8zs90 anabaena sp
41	33	70.2	886	10	Q8L820	Q8l820 zea mays (m
42	33	70.2	1010	16	Q8P3D9	Q8p3d9 xanthomonas
43	33	70.2	1066	16	Q8PE61	Q8pe61 xanthomonas
44	33	70.2	2309	3	Q8WZV3	Q8wzv3 neurospora
45	32	68.1	114	5	Q9XU78	Q9xu78 caenorhabdi

ALIGNMENTS

```
RESULT 1
Q8UWJ1
ID   Q8UWJ1      PRELIMINARY;      PRT;    89 AA.
AC   Q8UWJ1;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x (Fragment).
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Ovary;
RA   Shi Z., Onagbesan O.M., Williams J.;
RT   "Apoptosis in chicken ovary.";
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF432511; AAL35559.1; -.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER      89     89
SQ   SEQUENCE   89 AA;  10124 MW;  B5B0EBE5F323A8C4 CRC64;

  Query Match             100.0%;  Score 47;  DB 13;  Length 89;
  Best Local Similarity   100.0%;  Pred. No. 0.063;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         17 FELRYRRAF 25


RESULT 2
Q9H1R5
ID   Q9H1R5      PRELIMINARY;      PRT;   125 AA.
AC   Q9H1R5;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   BA243J16.1.2 (BCL2-like 1 (Isoform 2)) (Fragment).
GN   BCL2L1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Brown A.;
RL   Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AL160175; CAC10004.1; -.
DR   HSSP; Q07817; 1LXL.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
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DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     125    125
SQ   SEQUENCE   125 AA;  13874 MW;  D84C030651475365 CRC64;

  Query Match             100.0%;  Score 47;  DB 4;  Length 125;
  Best Local Similarity   100.0%;  Pred. No. 0.088;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 3
Q9WUI5
ID   Q9WUI5      PRELIMINARY;      PRT;   170 AA.
AC   Q9WUI5;
DT   01-NOV-1999 (TrEMBLrel. 12, Created)
DT   01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x short.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley; TISSUE=Brain;
RA   He X.J., Jin K.L., Graham S.H., Simon R.P.;
RL   Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF136230; AAD33683.1; -.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   170 AA;  19031 MW;  B579ADAA98F79208 CRC64;

  Query Match             100.0%;  Score 47;  DB 11;  Length 170;
  Best Local Similarity   100.0%;  Pred. No. 0.12;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 4
Q9BDX7
ID   Q9BDX7      PRELIMINARY;      PRT;   180 AA.
AC   Q9BDX7;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Anti-apoptotic regulator Bcl-xL (Fragment).
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Amills M., Bouzat J.;
RT   "Characterization of the bovine bcl-xL gene and related pseudogenes.";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF245487; AAK31306.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER     180    180
SQ   SEQUENCE   180 AA;  20056 MW;  62C4C0BD0555A9EF CRC64;

  Query Match             100.0%;  Score 47;  DB 6;  Length 180;
  Best Local Similarity   100.0%;  Pred. No. 0.13;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         47 FELRYRRAF 55


RESULT 5
Q9BDD5
ID   Q9BDD5      PRELIMINARY;      PRT;   180 AA.
AC   Q9BDD5;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Anti-apoptotic regulator Bcl-xL (Fragment).
OS   Bos taurus (Bovine).
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OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Amills M., Bouzat J.;
RT   "Characterization of the bovine bcl-xL gene and related pseudogenes.";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF245488; AAK31307.1; -.
DR   EMBL; AF245489; AAK31308.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER     180    180
SQ   SEQUENCE   180 AA;  20062 MW;  95DC436F95DABDA6 CRC64;

  Query Match            100.0%;  Score 47;  DB 6;  Length 180;
  Best Local Similarity  100.0%;  Pred. No. 0.13;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         47 FELRYRRAF 55


RESULT 6
Q9H1R6
ID   Q9H1R6      PRELIMINARY;      PRT;   188 AA.
AC   Q9H1R6;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   BA243J16.1.1 (BCL2-like 1 (Isoform 1)) (Fragment).
GN   BCL2L1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Brown A.;
RL   Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AL160175; CAC10003.1; -.
DR   HSSP; Q07817; 1LXL.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     188    188
SQ   SEQUENCE   188 AA;  21029 MW;  7074B6095145C324 CRC64;

  Query Match            100.0%;  Score 47;  DB 4;  Length 188;
  Best Local Similarity  100.0%;  Pred. No. 0.13;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 7
Q9QWX2
ID   Q9QWX2      PRELIMINARY;      PRT;   188 AA.
AC   Q9QWX2;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x (Fragment).
GN   BCL2L.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=20350651; PubMed=10894153;
RA   Rucker E.B. III, Dierisseau P., Wagner K.U., Garrett L.,
RA   Wynshaw-Boris A., Flaws J.A., Hennighausen L.;
RT   "Bcl-x and Bax regulate mouse primordial germ cell survival and
RT   apoptosis during embryogenesis.";
RL   Mol. Endocrinol. 14:1038-1052(2000).
DR   EMBL; AF088904; AAC72232.1; -.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
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DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     188    188
SQ   SEQUENCE   188 AA;  21126 MW;  4E62F8356D248E52 CRC64;

  Query Match             100.0%;  Score 47;  DB 11;  Length 188;
  Best Local Similarity   100.0%;  Pred. No. 0.13;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 8
Q99N35
ID   Q99N35      PRELIMINARY;      PRT;   217 AA.
AC   Q99N35;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   B-cell leukemia/lymphoma x (Fragment).
GN   BCLX.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=129/SvJ;
RA   Yang X.-F., Cantor H.;
RT   "Novel cDNA structure and genomic organization of apoptosis regulatory
RT   gene Bcl-x-gamma.";
RL   Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF133282; AAK15455.1; -.
DR   EMBL; AF133281; AAK15455.1; JOINED.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1       1
SQ   SEQUENCE   217 AA;  24234 MW;  3B5A4E809A7DEF18 CRC64;

  Query Match             100.0%;  Score 47;  DB 11;  Length 217;
  Best Local Similarity   100.0%;  Pred. No. 0.15;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         81 FELRYRRAF 89


RESULT 9
Q99N36
ID   Q99N36      PRELIMINARY;      PRT;   219 AA.
AC   Q99N36;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   B-cell leukemia/lymphoma x-gamma (Fragment).
GN   BCLX.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=129/SvJ;
RA   Yang X.-F., Cantor H.;
RT   "Novel cDNA structure and genomic organization of apoptosis regulatory
RT   gene Bcl-x-gamma.";
RL   Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF133279; AAK15454.1; -.
DR   EMBL; AF133281; AAK15454.1; JOINED.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   SMART; SM00337; BCL; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1       1
SQ   SEQUENCE   219 AA;  24224 MW;  EB352EC4CFAA6AF5 CRC64;

  Query Match             100.0%;  Score 47;  DB 11;  Length 219;
  Best Local Similarity   100.0%;  Pred. No. 0.15;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         81 FELRYRRAF 89


RESULT 10
Q9N1A2
ID   Q9N1A2      PRELIMINARY;      PRT;   233 AA.
AC   Q9N1A2;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
```

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DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Anti-apoptotic regulator Bcl-xL.
GN   BCL-XL.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Heart;
RA   Lee T.L., Canty J.M.;
RT   "PCR Cloning of a Porcine bcl-xL cDNA from Heart.";
RL   Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF216205; AAF33212.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26047 MW;  2FA312818B25E17D CRC64;

  Query Match             100.0%;  Score 47;  DB 6;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.16;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 11
Q9MZS7
ID   Q9MZS7      PRELIMINARY;      PRT;   233 AA.
AC   Q9MZS7;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x long protein.
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Ovary;
RA   Murray J.F., Dong Y.B., Leigh A.J., Scaramuzzi R.J., Carter N.D.;
RT   "Bcl-x in the sheep ovary.";
RL   Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF164517; AAF89532.1; -.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26134 MW;  012BFA1382762915 CRC64;

  Query Match             100.0%;  Score 47;  DB 6;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.16;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 12
Q8SQ42
ID   Q8SQ42      PRELIMINARY;      PRT;   233 AA.
AC   Q8SQ42;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-xl protein.
GN   BCL-XL.
OS   Felis silvestris catus (Cat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Nagafuchi S., Sano J., Kano R., Hasegawa A.;
RT   "Moleculer cloning of feline Bcl-2 family.";
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB080951; BAB85856.2; -.
DR   GO; GO:0016020; C:membrane; IEA.
```

```
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26017 MW;  CD17F24FE9D47BC9 CRC64;

  Query Match             100.0%;  Score 47;  DB 6;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.16;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 13
Q9MYW4
ID   Q9MYW4      PRELIMINARY;      PRT;   233 AA.
AC   Q9MYW4;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-X.
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Knott J.C., Robertson L., James E.R.;
RT   "Rabbit Bcl-X.";
RL   Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY005131; AAF88137.1; -.
DR   HSSP; P53563; 1AF3.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  25986 MW;  12F0F30344D53F93 CRC64;

  Query Match             100.0%;  Score 47;  DB 6;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.16;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 14
O35844
ID   O35844      PRELIMINARY;      PRT;   233 AA.
AC   O35844;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-xL.
GN   BCL2L.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=B6/CBA; TISSUE=Thymus;
RX   MEDLINE=98051053; PubMed=9390687;
RA   Yang X.-F., Weber G.F., Cantor H.;
RT   "A novel Bcl-x isoform connected to the T cell receptor regulates
RT   apoptosis in T cells.";
RL   Immunity 7:629-639(1997).
DR   EMBL; U51278; AAC53459.1; -.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl2l.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
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DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   233 AA;  26033 MW;  3083F2D8327E072E CRC64;

  Query Match             100.0%;  Score 47;  DB 11;  Length 233;
  Best Local Similarity   100.0%;  Pred. No. 0.16;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


RESULT 15
O35843
ID   O35843      PRELIMINARY;      PRT;   235 AA.
AC   O35843;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl-x-gamma.
GN   BCL2L.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=B6/CBA; TISSUE=Thymus;
RX   MEDLINE=98051053; PubMed=9390687;
RA   Yang X.-F., Weber G.F., Cantor H.;
RT   "A novel Bcl-x isoform connected to the T cell receptor regulates
RT   apoptosis in T cells.";
RL   Immunity 7:629-639(1997).
DR   EMBL; U51277; AAC53458.1; -.
DR   HSSP; P53563; 1AF3.
DR   MGD; MGI:88139; Bcl21.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   235 AA;  26122 MW;  649D914C2D5378F6 CRC64;

  Query Match             100.0%;  Score 47;  DB 11;  Length 235;
  Best Local Similarity   100.0%;  Pred. No. 0.16;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FELRYRRAF 9
              |||||||||
Db         97 FELRYRRAF 105


Search completed: March 30, 2004, 15:40:14
Job time : 34 secs
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:21:50 ; Search time 48 Seconds
(without alignments)
52.978 Million cell updates/sec

Title: US-09-622-058-2
Perfect score: 49
Sequence: 1 FSRRYRRDF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	49	100.0	9	2	AAY29886	Aay29886 RY domain
2	49	100.0	27	3	AAB37011	Aab37011 Bcl2 poly
3	49	100.0	27	3	AAB37009	Aab37009 Bcl2 poly
4	49	100.0	27	3	AAB37010	Aab37010 Bcl2 poly
5	49	100.0	28	2	AAW02380	Aaw02380 BCL2 gene
6	49	100.0	28	2	AAW02381	Aaw02381 BCL2 gene
7	49	100.0	28	2	AAW02382	Aaw02382 BCL2 gene
8	49	100.0	155	6	AAG79759	Aag79759 Bcl-2. 4/
9	49	100.0	199	6	ABR58047	Abr58047 Mouse Bcl
10	49	100.0	232	2	AAW01020	Aaw01020 Apoptosis
11	49	100.0	232	2	AAW01019	Aaw01019 Apoptosis
12	49	100.0	232	2	AAW94347	Aaw94347 Human Bcl
13	49	100.0	232	2	AAW94346	Aaw94346 Human Bcl
14	49	100.0	236	2	AAW87811	Aaw87811 A murine
15	49	100.0	236	4	AAB35131	Aab35131 Murine Bc
16	49	100.0	236	4	AAB74128	Aab74128 Murine bc
17	49	100.0	236	5	AAU76554	Aau76554 Murine Bc
18	49	100.0	236	6	ABR58046	Abr58046 Mouse Bcl
19	49	100.0	237	7	ADD45438	Add45438 Rat Prote
20	49	100.0	239	2	AAW01018	Aaw01018 Apoptosis
21	49	100.0	239	2	AAW94345	Aaw94345 Human Bcl
22	49	100.0	239	2	AAW87810	Aaw87810 A human B
23	49	100.0	239	3	AAY69203	Aay69203 Amino aci
24	49	100.0	239	4	AAB35130	Aab35130 Human Bcl
25	49	100.0	239	4	AAB48288	Aab48288 Human BCL
26	49	100.0	239	4	AAB50537	Aab50537 Human Bcl
27	49	100.0	239	4	AAB74127	Aab74127 Human bcl
28	49	100.0	239	5	ABG78479	Abg78479 Human Bcl
29	49	100.0	239	5	ABG78478	Abg78478 Human Bcl
30	49	100.0	239	5	AAU76553	Aau76553 Human Bcl
31	49	100.0	239	6	AAE37661	Aae37661 Human Bcl
32	49	100.0	239	6	AAE37658	Aae37658 Bcl2 rela
33	49	100.0	239	7	ADD45440	Add45440 Human Pro
34	49	100.0	272	6	ABR41675	Abr41675 Human DIT
35	45	91.8	27	3	AAB37008	Aab37008 Bcl2 poly
36	43	87.8	236	5	AAO18221	Aao18221 Human Bcl
37	42	85.7	18	2	AAW87828	Aaw87828 Epitope o
38	42	85.7	18	4	AAB74145	Aab74145 Bax epito
39	42	85.7	166	5	ABG78476	Abg78476 Human Bcl
40	42	85.7	205	1	AAP80988	Aap80988 Sequence
41	42	85.7	205	2	AAR70332	Aar70332 Human bcl
42	42	85.7	205	2	AAR71405	Aar71405 Human bcl
43	42	85.7	205	2	AAR68886	Aar68886 Human thy
44	42	85.7	205	2	AAW31529	Aaw31529 Human ant
45	42	85.7	205	2	AAW87813	Aaw87813 A human B

ALIGNMENTS

RESULT 1
AAY29886
ID AAY29886 standard; peptide; 9 AA.
XX
AC AAY29886;
XX
DT 18-NOV-1999 (first entry)
XX
DE RY domain death inhibiting peptide Bcl-2.
XX
KW RY domain; cell death; apoptosis; inhibition; regulation; Bcl-2;
KW neurodegenerative disorder; cerebral stroke; myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO9943701-A2.

XX
PD 02-SEP-1999.
XX
PF 16-FEB-1999; 99WO-IL000096.
XX
PR 24-FEB-1998; 98IL-00123429.
XX
PA (NSTN-) NST NEUROSURVIVAL TECHNOLOGIES LTD.
XX
PI Ziv I, Shirvan A;
XX
DR WPI; 1999-550858/46.
XX
PT New RY domain peptides, used for inhibiting cell death, particularly for
PT treating disorders, e.g. neurodegenerative disorders, cerebral strokes or
PT myocardial infarction.
XX
PS Claim 8; Page 23; 37pp; English.
XX
CC The present sequence represents a specifically claimed RY domain peptide
CC which inhibits cell death (apoptosis). The RY domain peptide can be used
CC for increasing the number of viable cells in a biological tissue or for
CC the enhancement of survival of biological cells. It can be used for
CC treating disorders caused by the inappropriate activation of apoptosis,
CC e.g. neurodegenerative disorders, cerebral strokes or myocardial
CC infarction
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 49; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 1 FSRRYRRDF 9

RESULT 2
AAB37011
ID AAB37011 standard; peptide; 27 AA.
XX
AC AAB37011;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #11.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX

PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

Query Match 100.0%; Score 49; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.13;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 19 FSRRYRRDF 27

RESULT 3
AAB37009
ID AAB37009 standard; peptide; 27 AA.
XX
AC AAB37009;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #9.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

  Query Match   100.0%; Score 49; DB 3; Length 27;
  Best Local Similarity   100.0%; Pred. No. 0.13;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FSRRYRRDF 9
              |||||||||
Db   19 FSRRYRRDF 27

RESULT 4
AAB37010
ID AAB37010 standard; peptide; 27 AA.
XX
AC AAB37010;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #10.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.

XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

Query Match 100.0%; Score 49; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.13;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 19 FSRRYRRDF 27

RESULT 5
AAW02380
ID AAW02380 standard; protein; 28 AA.
XX
AC AAW02380;
XX
DT 04-JUN-1997 (first entry)
XX
DE BCL2 gene function inhibiting peptide.
XX
KW Sense oriented; genetic suppressor element; GSE; reverse; BCL2; gene;
KW mediated; suppression; apoptosis; mammalian; cell; inhibition;
KW sensitisation; cancer; chemotherapeutic agent; increase; treatment;
KW induction; virus; infection; death; disease; haematopoietic;
KW neurological; recombinant construct; decrease; expression; anticancer;
KW non-Hodgkin's lymphoma; B cell malignancy; mutant.
XX
OS Homo sapiens.
XX
PN WO9629403-A1.
XX
PD 26-SEP-1996.
XX
PF 14-MAR-1996; 96WO-US003545.
XX
PR 17-MAR-1995; 95US-00405702.
XX
PA (UNII) UNIV ILLINOIS FOUND.
XX
PI Tarasewicz DG, Schott B, Holzmayer TA, Roninson IB;
XX
DR WPI; 1996-443179/44.
DR N-PSDB; AAT33691.
XX
PT Sense oriented genetic suppressor element - for reversing BCL2 mediated
PT inhibition of apoptosis, and for sensitising cancer cells against
PT chemotherapeutic agents.
XX
PS Claim 2; Page 35-36; 66pp; English.
XX
CC The present peptide is capable of inhibiting BCL2 gene, or gene product,
CC function in a cell, and is encoded by a sense oriented genetic suppressor
CC element (GSE) for reversing BCL2 mediated suppression of apoptosis in a
CC mammalian cell. The GSE and its peptide product can be used to sensitise
CC cancer cells to chemotherapeutic agents, and to increase apoptosis,
CC especially for the treatment of cancer, but more generally to induce
CC virus infected cell death, or to treat apoptosis related diseases of
CC haematopoietic or neurological cells. The GSE peptide product or a
CC recombinant construct encoding the GSE can be used to decrease BCL2 gene
CC expression by exerting an anticancer effect, e.g. in cases of non-
CC Hodgkin's lymphoma and B cell malignancy. The GSE was prepared by cloning
CC the cDNA sequence encoding residues Val92 to Leu119 of the wild type
CC human BCL2 cDNA in an expression vector, and generating numerous mutated
CC sequences in vitro or in vivo. These were then screened for the ability
CC to reverse apoptosis, and active clones selected
XX
SQ Sequence 28 AA;

Query Match 100.0%; Score 49; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 13 FSRRYRRDF 21

RESULT 6
AAW02381
ID AAW02381 standard; protein; 28 AA.
XX
AC AAW02381;
XX
DT 04-JUN-1997 (first entry)
XX
DE BCL2 gene function inhibiting peptide.

XX
KW Sense oriented; genetic suppressor element; GSE; reverse; BCL2; gene;
KW mediated; suppression; apoptosis; mammalian; cell; inhibition;
KW sensitisation; cancer; chemotherapeutic agent; increase; treatment;
KW induction; virus; infection; death; disease; haematopoietic;
KW neurological; recombinant construct; decrease; expression; anticancer;
KW non-Hodgkin's lymphoma; B cell malignancy; mutant.
XX
OS Homo sapiens.
XX
PN WO9629403-A1.
XX
PD 26-SEP-1996.
XX
PF 14-MAR-1996; 96WO-US003545.
XX
PR 17-MAR-1995; 95US-00405702.
XX
PA (UNII) UNIV ILLINOIS FOUND.
XX
PI Tarasewicz DG, Schott B, Holzmayer TA, Roninson IB;
XX
DR WPI; 1996-443179/44.
DR N-PSDB; AAT33692.
XX
PT Sense oriented genetic suppressor element - for reversing BCL2 mediated
PT inhibition of apoptosis, and for sensitising cancer cells against
PT chemotherapeutic agents.
XX
PS Claim 2; Page 36; 66pp; English.
XX
CC The present peptide is capable of inhibiting BCL2 gene, or gene product,
CC function in a cell, and is encoded by a sense oriented genetic suppressor
CC element (GSE) for reversing BCL2 mediated suppression of apoptosis in a
CC mammalian cell. The GSE and its peptide product can be used to sensitise
CC cancer cells to chemotherapeutic agents, and to increase apoptosis,
CC especially for the treatment of cancer, but more generally to induce
CC virus infected cell death, or to treat apoptosis related diseases of
CC haematopoietic or neurological cells. The GSE peptide product or a
CC recombinant construct encoding the GSE can be used to decrease BCL2 gene
CC expression by exerting an anticancer effect, e.g. in cases of non-
CC Hodgkin's lymphoma and B cell malignancy. The GSE was prepared by cloning
CC the cDNA sequence encoding residues Val92 to Leu119 of the wild type
CC human BCL2 cDNA in an expression vector, and generating numerous mutated
CC sequences in vitro or in vivo. These were then screened for the ability
CC to reverse apoptosis, and active clones selected
XX
SQ Sequence 28 AA;

Query Match 100.0%; Score 49; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
||||||||| |
Db 13 FSRRYRRDF 21

RESULT 7
AAW02382
ID AAW02382 standard; protein; 28 AA.
XX
AC AAW02382;
XX
DT 04-JUN-1997 (first entry)
XX
DE BCL2 gene function inhibiting peptide.
XX
KW Sense oriented; genetic suppressor element; GSE; reverse; BCL2; gene;
KW mediated; suppression; apoptosis; mammalian; cell; inhibition;
KW sensitisation; cancer; chemotherapeutic agent; increase; treatment;
KW induction; virus; infection; death; disease; haematopoietic;
KW neurological; recombinant construct; decrease; expression; anticancer;
KW non-Hodgkin's lymphoma; B cell malignancy; mutant.
XX
OS Homo sapiens.
XX
PN WO9629403-A1.
XX
PD 26-SEP-1996.
XX
PF 14-MAR-1996; 96WO-US003545.
XX
PR 17-MAR-1995; 95US-00405702.
XX
PA (UNII) UNIV ILLINOIS FOUND.
XX
PI Tarasewicz DG, Schott B, Holzmayer TA, Roninson IB;
XX
DR WPI; 1996-443179/44.
DR N-PSDB; AAT33693.
XX
PT Sense oriented genetic suppressor element - for reversing BCL2 mediated
PT inhibition of apoptosis, and for sensitising cancer cells against
PT chemotherapeutic agents.
XX
PS Claim 2; Page 37; 66pp; English.
XX
CC The present peptide is capable of inhibiting BCL2 gene, or gene product,
CC function in a cell, and is encoded by a sense oriented genetic suppressor
CC element (GSE) for reversing BCL2 mediated suppression of apoptosis in a
CC mammalian cell. The GSE and its peptide product can be used to sensitise
CC cancer cells to chemotherapeutic agents, and to increase apoptosis,
CC especially for the treatment of cancer, but more generally to induce
CC virus infected cell death, or to treat apoptosis related diseases of
CC haematopoietic or neurological cells. The GSE peptide product or a
CC recombinant construct encoding the GSE can be used to decrease BCL2 gene
CC expression by exerting an anticancer effect, e.g. in cases of non-
CC Hodgkin's lymphoma and B cell malignancy. The GSE was prepared by cloning
CC the cDNA sequence encoding residues Val92 to Leu119 of the wild type
CC human BCL2 cDNA in an expression vector, and generating numerous mutated
CC sequences in vitro or in vivo. These were then screened for the ability
CC to reverse apoptosis, and active clones selected
XX

SQ Sequence 28 AA;

Query Match 100.0%; Score 49; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
||||||||| |
Db 13 FSRRYRRDF 21

RESULT 8
AAG79759
ID AAG79759 standard; protein; 155 AA.
XX
AC AAG79759;
XX
DT 01-APR-2003 (first entry)
XX
DE Bcl-2.
XX
KW Bcl-2; Bcl-XL; anti-apoptosis; cell division; cancer; gossypol;
KW breast cancer; MDA-MB-231; hyperproliferative disease; cancer; AIDS;
KW degenerative condition; vascular disease; pathogen; bacteria; fungi;
KW virus; cell division.
XX
OS Homo sapiens.
XX
PN WO200297053-A2.
XX
PD 05-DEC-2002.
XX
PF 30-MAY-2002; 2002WO-US017206.
XX
PR 30-MAY-2001; 2001US-0293983P.
PR 30-MAY-2002; 2002US-00293983.
XX
PA (UNMI) UNIV MICHIGAN.
XX
PI Wang S, Yang D;
XX
DR WPI; 2003-140460/13.
XX
PT Modulating apoptosis or cell division in a tissue, treating a subject
PT overexpressing Bcl-2 family protein, and treating cancer in a subject, by
PT administering gossypol compound to the cell, tissue or subject.
XX
PS Example 1; Fig 1; 96pp; English.
XX
CC The sequences given in AAG79759-60 represent Bcl-2 and Bcl-XL. Bcl-2 and
CC Bcl-XL are anti-apoptotic proteins which could be monitored in the method
CC of the invention for modulating apoptosis in a cell, modulating cell
CC division in a tissue, treating a subject over expressing Bcl-2 family
CC protein, and treating cancer in a subject. The method comprises
CC administering a gossypol compound to the cell, tissue or subject.
CC Gossypol was shown to inhibit the breast cancer cell line MDA-MB-231 cell
CC growth with an IC50 value of 2.0 microM. The method of the invention is
CC useful for modulating apoptosis in a diseased cell (e.g.
CC hyperproliferative disease, cancer, AIDS, degenerative condition,
CC vascular disease and infection by pathogen e.g. bacteria, fungi or
CC virus), modulating cell division in a tissue, treating a subject having a
CC condition characterized by overexpression of Bcl-2 family protein, and
CC treating cancer in a subject, where the cancer includes cancer of breast,
CC prostate, skin, pancreas, colon, ovary, brain, liver, bladder, non-small
CC lung or cervix, or melanoma, carcinoma, myeloma, adrenal carcinoma,
CC lymphoma, leukemia, neuroblastoma, glioblastoma and head-neck cancer. The
CC cancer may be metastatic or resistant to cancer therapy including
CC chemotherapy, radiation therapy or hormone treatment
XX
SQ Sequence 155 AA;

Query Match 100.0%; Score 49; DB 6; Length 155;
Best Local Similarity 100.0%; Pred. No. 0.67;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
||||||||| |
Db 56 FSRRYRRDF 64

RESULT 9
ABR58047
ID ABR58047 standard; protein; 199 AA.
XX
AC ABR58047;
XX
DT 15-OCT-2003 (first entry)
XX
DE Mouse Bcl-2 beta protein.
XX
KW antiinflammatory; cytostatic; immunosuppressive; antirheumatic;
KW antiarthritic; thyromimetic; anti-HIV; nephrotropic; nootropic; bim;
KW neuroprotective; antiparkinsonian; allele; bcl-2; animal model;
KW apoptosis; degenerative disorder; cell survival; inflammation; cancer;
KW lymphoma; prostate hyperplasia; tumour; autoimmune disorder; radiation;
KW rheumatoid arthritis; Hashimoto's thyroiditis; Sjogren's syndrome;
KW tissue hypertrophy; AIDS; polycystic kidney disease; chemotherapy;
KW neurodegenerative disease; Alzheimer's disease; Parkinson's disease.
XX
OS Mus musculus.
XX
PN WO2003028443-A1.
XX
PD 10-APR-2003.
XX
PF 27-SEP-2002; 2002WO-AU001325.
XX
PR 28-SEP-2001; 2001US-0325691P.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Strasser A, Zhang L, Adams JM, Bouillet P;
XX
DR WPI; 2003-363247/34.

```
XX
PT   New genetically modified animals (e.g. mouse) with partial or complete
PT   loss of function in the bcl-2 and/or bim genes, useful as models in
PT   screening agents for treating e.g. cancers, rheumatoid arthritis, AIDS or
PT   Alzheimer's disease.
XX
PS   Disclosure; Page 81-82; 91pp; English.
XX
CC   The invention relates to a genetically modified non-human animal having a
CC   partial or complete loss of function in one or both alleles of the
CC   endogenous bcl-2 gene, and in one or both alleles of the endogenous bim
CC   gene. The genetically modified animal is useful as a model in methods for
CC   screening agents that modulate the level and/or functional activity of a
CC   pro-apoptotic protein or pro-survival protein for treating or preventing
CC   degenerative disorders. In particular, the animal is useful as a model in
CC   drug screening methods for agents that modulate degenerative disorders
CC   associated with bcl-2 and/or bim, for agents that modulate (in)activation
CC   of apoptosis, or for agents that modulate cell survival. Degenerative
CC   disorders characterized by inappropriate cell proliferation include
CC   inflammatory conditions, cancers (e.g. lymphomas, prostate hyperplasia,
CC   genotypic tumors), autoimmune disorders (rheumatoid arthritis,
CC   Hashimoto's thyroiditis or Sjogren's syndrome), tissue hypertrophy, etc.
CC   Degenerative disorders characterized by inappropriate cell death include
CC   AIDS, polycystic kidney disease, cell death due to radiation or
CC   chemotherapy, or neurodegenerative diseases (e.g. Alzheimer's or
CC   Parkinson's disease). This sequence represents the mouse bcl-2 beta
CC   protein. The corresponding gene also encodes a different bcl2 protein
CC   (bcl-2 alpha; ABR58046) with an altered C-terminal portion probably
CC   caused by alternative splicing of the coding sequence (details not given
CC   in the specification)
XX
SQ   Sequence 199 AA;

  Query Match             100.0%;  Score 49;  DB 6;  Length 199;
  Best Local Similarity   100.0%;  Pred. No. 0.84;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109


RESULT 10
AAW01020
ID   AAW01020 standard; protein; 232 AA.
XX
AC   AAW01020;
XX
DT   18-DEC-1996  (first entry)
XX
DE   Apoptosis-blocking protein Bcl-2 mutant 80-6 (del80-86).
XX
KW   Apoptosis-regulating protein; Bcl-2; oncogene;
KW   adenovirus E1B 19K protein; cell death; cancer; tumour; immune disorder;
KW   diagnosis; therapy; Bip1A; Bip13; Bip5; NIp1; Nip2; Nip3.
XX
OS   Synthetic.
XX
PN   EP733706-A2.
XX
PD   25-SEP-1996.
XX
PF   21-MAR-1996;   96EP-00104542.
XX
PR   21-MAR-1995;   95US-00408095.
XX
PA   (UYSL-) UNIV ST LOUIS.
XX
PI   Chinnadurai G;
XX
DR   WPI; 1996-427055/43.
XX
PT   Nucleic acids encoding apoptosis regulating proteins - useful for
PT   diagnosing and treating immune disorders, malignancies, etc.
XX
PS   Example 8; Page 34-35; 60pp; English.
XX
CC   The 80-6 mutant (AAW01020) of the bcl-2 oncogene product (AAW01018) lacks
CC   amino acids 80-86 of the native protein. This and other Bcl-2 mutants
CC   (see also AAW01019-21) were used in a two hybrid assay to examine the
CC   interactions between Bcl-2 and novel apoptosis- regulating proteins Nip1,
CC   Nip2 and Nip3 (AAW00997-99). 2 Motifs (AAW01003-04) on Bcl-2 were
CC   identified that are essential for interaction with the Nip proteins.
CC   These motifs show homology to motifs (AAW01005-06) identified on the
CC   adenovirus E1B 19K apoptosis-blocking protein (AAW01010)
XX
SQ   Sequence 232 AA;

  Query Match             100.0%;  Score 49;  DB 2;  Length 232;
  Best Local Similarity   100.0%;  Pred. No. 0.97;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         97 FSRRYRRDF 105


RESULT 11
AAW01019
ID   AAW01019 standard; protein; 232 AA.
XX
AC   AAW01019;
XX
DT   18-DEC-1996  (first entry)
XX
DE   Apoptosis-blocking protein Bcl-2 mutant 42-8 (del42-48).
XX
KW   Apoptosis-regulating protein; Bcl-2; oncogene;
KW   adenovirus E1B 19K protein; cell death; cancer; tumour; immune disorder;
KW   diagnosis; therapy; Bip1A; Bip13; Bip5; NIp1; Nip2; Nip3.
XX
OS   Synthetic.
XX
PN   EP733706-A2.
```

XX
PD 25-SEP-1996.
XX
PF 21-MAR-1996; 96EP-00104542.
XX
PR 21-MAR-1995; 95US-00408095.
XX
PA (UYSL-) UNIV ST LOUIS.
XX
PI Chinnadurai G;
XX
DR WPI; 1996-427055/43.
XX
PT Nucleic acids encoding apoptosis regulating proteins - useful for
PT diagnosing and treating immune disorders, malignancies, etc.
XX
PS Example 8; Page 33-34; 60pp; English.
XX
CC The 42-8 mutant (AAW01019) of the bcl-2 oncogene product (AAW01018) lacks
CC amino acids 42-48 of the native protein. This and other Bcl-2 mutants
CC (see also AAW01020-21) were used in a two hybrid assay to examine the
CC interactions between Bcl-2 and novel apoptosis- regulating proteins Nip1,
CC Nip2 and Nip3 (AAW00997-99). The Nip proteins were unable to interact
CC with mutant 42-8. The site of deletion in this mutant corresponds to a
CC motif (see also AAW01003) on Bcl-2 essential for interaction with Nip
CC proteins. A second binding motif (AAW01004) of Bcl-2 was also identified,
CC and both show homology to motifs (AAW01005-06) found on the 19K protein
CC (AAW01010) of adenovirus E1B
XX
SQ Sequence 232 AA;

Query Match 100.0%; Score 49; DB 2; Length 232;
Best Local Similarity 100.0%; Pred. No. 0.97;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 97 FSRRYRRDF 105

RESULT 12
AAW94347
ID AAW94347 standard; protein; 232 AA.
XX
AC AAW94347;
XX
DT 13-APR-1999 (first entry)
XX
DE Human Bcl-2 mutant protein #80-6.
XX
KW Human; Nip1; Nip2; Nip3; Bip1A; Bip5; Bip13; adenovirus; cell death;
KW viral infection; Bcl-2; protooncogene; mutational analysis; apoptosis;
KW E1B 19K protein; cell survival regulation.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN US5858678-A.
XX
PD 12-JAN-1999.
XX
PF 21-MAR-1995; 95US-00408095.
XX
PR 02-AUG-1994; 94US-00284139.
XX
PA (UYSL-) UNIV ST LOUIS.
XX
PI Chinnadurai G;
XX
DR WPI; 1999-152099/13.
XX
PT Polypeptides that bind to anti-apoptotic proteins - useful for protecting
PT against cell death induced by viral infection and to modulate response to
PT physical and chemical stimuli.
XX
PS Example 8; Col 43-46; 41pp; English.
XX
CC The present invention describes: (1) a method for regulating cell death,
CC comprising exposing an isolated cell to a polypeptide selected from Nip1,
CC Nip2, Nip3, Bip1A, Bip5 and Bip13; (2) a method for neutralising the
CC activity of the adenovirus E1B 19 kD protein, the Bcl-2 protein or the
CC BHRF-1 protein, comprising exposing an isolated cell to a polypeptide as
CC in (1); and (3) a method for detecting molecules that bind to at least
CC one polypeptide as in (1), comprising lysing cells, exposing the lysate
CC to the polypeptide and detecting any molecule- polypeptide aggregates.
CC The methods are useful for providing proteins able to bind to other
CC proteins known to regulate cell survival e.g. it is known that E1B 19K
CC protein provides a survival function similar to the cellular
CC protooncogene bcl-2 gene product which is able to block apoptosis in
CC haematopoietic B and T cells. The present sequence represents a human Bcl
CC -2 mutant protein from the present invention
XX
SQ Sequence 232 AA;

Query Match 100.0%; Score 49; DB 2; Length 232;
Best Local Similarity 100.0%; Pred. No. 0.97;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 97 FSRRYRRDF 105

RESULT 13
AAW94346
ID AAW94346 standard; protein; 232 AA.
XX
AC AAW94346;
XX
DT 13-APR-1999 (first entry)
XX
DE Human Bcl-2 mutant protein #42-8.
XX
KW Human; Nip1; Nip2; Nip3; Bip1A; Bip5; Bip13; adenovirus; cell death;

KW viral infection; Bcl-2; protooncogene; mutational analysis; apoptosis;
KW E1B 19K protein; cell survival regulation.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN US5858678-A.
XX
PD 12-JAN-1999.
XX
PF 21-MAR-1995; 95US-00408095.
XX
PR 02-AUG-1994; 94US-00284139.
XX
PA (UYSL-) UNIV ST LOUIS.
XX
PI Chinnadurai G;
XX
DR WPI; 1999-152099/13.
XX
PT Polypeptides that bind to anti-apoptotic proteins - useful for protecting
PT against cell death induced by viral infection and to modulate response to
PT physical and chemical stimuli.
XX
PS Example 8; Col 43-44; 41pp; English.
XX
CC The present invention describes: (1) a method for regulating cell death,
CC comprising exposing an isolated cell to a polypeptide selected from Nip1,
CC Nip2, Nip3, Bip1A, Bip5 and Bip13; (2) a method for neutralising the
CC activity of the adenovirus E1B 19 kD protein, the Bcl-2 protein or the
CC BHRF-1 protein, comprising exposing an isolated cell to a polypeptide as
CC in (1); and (3) a method for detecting molecules that bind to at least
CC one polypeptide as in (1), comprising lysing cells, exposing the lysate
CC to the polypeptide and detecting any molecule- polypeptide aggregates.
CC The methods are useful for providing proteins able to bind to other
CC proteins known to regulate cell survival e.g. it is known that E1B 19K
CC protein provides a survival function similar to the cellular
CC protooncogene bcl-2 gene product which is able to block apoptosis in
CC haematopoietic B and T cells. The present sequence represents a human Bcl
CC -2 mutant protein from the present invention
XX
SQ Sequence 232 AA;

Query Match 100.0%; Score 49; DB 2; Length 232;
Best Local Similarity 100.0%; Pred. No. 0.97;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
|||||||||
Db 97 FSRRYRRDF 105

RESULT 14
AAW87811
ID AAW87811 standard; protein; 236 AA.
XX
AC AAW87811;
XX
DT 10-MAR-1999 (first entry)
XX
DE A murine Bcl-2 protein.
XX
KW Human; Bcl-2 associated protein; Bax; bcl-2; antibody; modulator;
KW bcl-2-related function; apoptosis; dimer; Bcl-xL; Mcl-1; A1.
XX
OS Mus sp.
XX
PN US5856171-A.
XX
PD 05-JAN-1999.
XX
PF 10-NOV-1994; 94US-00337646.
XX
PR 26-AUG-1993; 93US-00112208.
PR 25-MAY-1994; 94US-00248819.
XX
PA (UNIW) UNIV WASHINGTON.
XX
PI Korsmeyer SJ;
XX
DR WPI; 1999-105119/09.
XX
PT DNA composition encoding bcl-2 two-hybrid and reporter system - for
PT identifying modulators of bcl-2 function.
XX
PS Example 10; Fig 7; 105pp; English.
XX
CC The present sequence represents a murine Bcl-2 protein. The specification
CC also describes Bcl-2 associated proteins designated Bax. The Bax protein
CC is used in a composition which comprises a bcl-2 family member
CC polypeptide, a naturally occurring Bax polypeptide and an antibody that
CC binds to the Bax polypeptide. The specification also describes a
CC composition comprising a hybrid protein comprising an activator domain of
CC a transcriptional activator protein and a bcl-2 family member having a
CC BH1 domain and a BH2 domain; another hybrid protein comprising a DNA-
CC binding domain of the transcriptional activator protein and a second bcl-
CC 2 family member having a BH1 domain and a BH2 domain; and a reporter gene
CC linked to a transcriptional regulatory element whose transcriptional
CC activity is dependent on the presence or absence of a dimer of the two
CC hybrid proteins. The bcl-2 family members are selected from naturally
CC occurring Bcl-2, Bcl-xL, Bax, Mcl-1, A1, fragments thereof, and mutants
CC having a mutation in the BH1 and/or BH2 domain that alters intermolecular
CC binding of the two bcl-2 family members. The compositions are used to
CC identify modulators of bcl-2-related function, e.g. substances that
CC inhibit binding of Bax to bcl-2, which would be potentially useful as
CC drugs for modulating apoptosis
XX
SQ Sequence 236 AA;

Query Match 100.0%; Score 49; DB 2; Length 236;
Best Local Similarity 100.0%; Pred. No. 0.99;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9

```
              |||||||||
Db        101 FSRRYRRDF 109
```

RESULT 15
AAB35131
ID AAB35131 standard; protein; 236 AA.
XX
AC AAB35131;
XX
DT 03-APR-2001 (first entry)
XX
DE Murine Bcl-2.
XX
KW Mouse; Bax; apoptosis modulator; BCL-2.
XX
OS Mus sp.
XX
PN US6165732-A.
XX
PD 26-DEC-2000.
XX
PF 31-JUL-1998; 98US-00127048.
XX
PR 14-OCT-1997; 97US-0061823P.
XX
PA (UNIW) UNIV WASHINGTON.
XX
PI Korsmeyer SJ, Schlesinger PH;
XX
DR WPI; 2001-101692/11.
XX
PT Identifying apoptosis-modulating compounds by contacting the compound
PT with lipid bilayer containing an ion channel formed by anti-apoptotic
PT polypeptide of Bcl-2 family and determining ion selectivity of the
PT channel.
XX
PS Example 1; Fig 11; 34pp; English.
XX
CC The present invention describes a method for identifying modulators of
CC apoptosis which involves contacting a compound of interest with a lipid
CC bilayer comprising a K+ or Cl- selective channel. This channel is a
CC member of the BCL-2 family. Apoptosis modulators are also provided,
CC including Bcl-2deltaTM and BaxdeltaTM
XX
SQ Sequence 236 AA;

  Query Match   100.0%; Score 49; DB 4; Length 236;
  Best Local Similarity 100.0%; Pred. No. 0.99;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

```
Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109
```

Search completed: March 30, 2004, 15:36:35

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:36:40 ; Search time 11.6667 Seconds
(without alignments)
74.205 Million cell updates/sec

Title: US-09-622-058-2
Perfect score: 49
Sequence: 1 FSRRYRRDF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_78:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	49	100.0	154	2	I58194	gene bcl-2 protein
2	49	100.0	199	1	TVMSB1	transforming prote
3	49	100.0	236	1	TVMSA1	transforming prote
4	49	100.0	236	2	I67432	BCL-2 - rat (fragm
5	49	100.0	236	2	I53744	gene bcl-2 protein
6	49	100.0	236	2	JC7383	B-cell lymphoma 2
7	49	100.0	239	1	TVHUA1	transforming prote
8	45	91.8	216	2	B37332	transforming prote
9	45	91.8	232	2	S24390	transforming prote
10	45	91.8	233	2	A37332	transforming prote
11	42	85.7	205	1	TVHUB1	transforming prote
12	38	77.6	531	2	F70415	CTP synthetase - A
13	37	75.5	695	2	JC1493	follitropin recept
14	36	73.5	547	2	C86264	protein F3F19.5 [i
15	36	73.5	622	2	T49426	Type 2C Protein Ph
16	34	69.4	303	1	A38274	Y box-binding prot
17	34	69.4	305	1	S22313	B box-binding prot
18	34	69.4	321	1	A48136	Y box-binding prot
19	34	69.4	322	1	I58195	Y box-binding prot
20	34	69.4	322	1	A23677	Y box-binding prot
21	34	69.4	324	1	I39382	Y box-binding prot
22	34	69.4	324	1	JQ2292	Y box-binding prot
23	34	69.4	339	2	D75473	prolipoprotein dia
24	34	69.4	345	2	D88108	protein C46E10.4 [
25	34	69.4	348	2	A49594	enhancer factor pr
26	34	69.4	477	2	H88042	protein C13A10.1 [
27	34	69.4	692	2	A34548	follitropin recept
28	34	69.4	694	2	JC2237	follitropin recept
29	34	69.4	695	1	QRHUFT	follitropin recept
30	34	69.4	695	1	JN0898	follitropin recept
31	34	69.4	695	2	I45896	follicle stimulati
32	34	69.4	862	2	H69107	ATP-dependent heli
33	34	69.4	1325	2	T01037	hypothetical prote
34	34	69.4	1950	2	S12332	ubiquitin-protein
35	33	67.3	107	2	AH1018	regulatory protein
36	33	67.3	123	2	T27268	hypothetical prote
37	33	67.3	156	2	B83574	hypothetical prote
38	33	67.3	171	2	A69145	ribosomal protein
39	33	67.3	318	2	B95883	probable transcrip
40	33	67.3	336	2	S55863	probable membrane
41	33	67.3	369	2	F72767	hypothetical prote
42	33	67.3	434	2	T51450	hypothetical prote
43	33	67.3	443	2	D81431	hypothetical prote
44	33	67.3	696	2	A41344	lutropin-choriogon
45	33	67.3	696	2	JC7361	follitropin recept

ALIGNMENTS

RESULT 1
I58194
gene bcl-2 protein - rat (fragment)
C;Species: Rattus sp. (rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 28-Jul-2003
C;Accession: I58194
R;Castren, E.; Ohga, Y.; Berzaghi, M.P.; Tzimagiorgis, G.; Thoenen, H.; Lindholm, D.
Neuroscience 61, 165-177, 1994
A;Title: bcl-2 messenger RNA is localized in neurons of the developing and adult rat brain.
A;Reference number: I58194; MUID:95059917; PMID:7969891
A;Accession: I58194
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-154 <RES>
A;Cross-references: GB:S74122; NID:g704363
C;Genetics:
A;Gene: bcl-2
C;Superfamily: bcl apoptosis regulator, inhibitory type

```
  Query Match           100.0%;  Score 49;  DB 2;  Length 154;
  Best Local Similarity  100.0%;  Pred. No. 0.057;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         83 FSRRYRRDF 91
```

```
RESULT 2
TVMSB1
transforming protein bcl-2-beta - mouse
C;Species: Mus musculus (house mouse)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 28-Jul-2003
C;Accession: B25960
R;Negrini, M.; Silini, E.; Kozak, C.; Tsujimoto, Y.; Croce, C.M.
Cell 49, 455-463, 1987
A;Title: Molecular analysis of mbcl-2: structure and expression of the murine
gene homologous to the human gene involved in follicular lymphoma.
A;Reference number: A90893; MUID:87187643; PMID:3032455
A;Accession: B25960
A;Molecule type: DNA
A;Residues: 1-199 <NEG>
A;Cross-references: GB:M16506; NID:g468335; PIDN:AAA37281.1; PID:g387110
C;Genetics:
A;Gene: BCL2
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: alternative splicing; transforming protein

  Query Match           100.0%;  Score 49;  DB 1;  Length 199;
  Best Local Similarity  100.0%;  Pred. No. 0.072;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109
```

```
RESULT 3
TVMSA1
transforming protein bcl-2-alpha - mouse
C;Species: Mus musculus (house mouse)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 28-Jul-2003
C;Accession: A25960; E37332
R;Negrini, M.; Silini, E.; Kozak, C.; Tsujimoto, Y.; Croce, C.M.
Cell 49, 455-463, 1987
A;Title: Molecular analysis of mbcl-2: structure and expression of the murine
gene homologous to the human gene involved in follicular lymphoma.
A;Reference number: A90893; MUID:87187643; PMID:3032455
A;Accession: A25960
A;Molecule type: DNA
A;Residues: 1-236 <NEG>
A;Cross-references: GB:L31532; GB:M16506; NID:g468336; PIDN:AAA37282.1;
PID:g387109
R;Eguchi, Y.; Ewert, D.L.; Tsujimoto, Y.
Nucleic Acids Res. 20, 4187-4192, 1992
```

```
A;Title: Isolation and characterization of the chicken bcl-2 gene: expression in
a variety of tissues including lymphoid and neuronal organs in adult and embryo.
A;Reference number: A37332; MUID:92375724; PMID:1508712
A;Accession: E37332
A;Status: preliminary; nucleic acid sequence not shown; not compared with
conceptual translation
A;Molecule type: DNA
A;Residues: 1-33,'E',34-220,'AL',223-236 <EGU>
C;Genetics:
A;Gene: BCL2
A;Introns: 192/3
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: alternative splicing; mitochondrion; transforming protein;
transmembrane protein

  Query Match           100.0%;  Score 49;  DB 1;  Length 236;
  Best Local Similarity  100.0%;  Pred. No. 0.085;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109
```

```
RESULT 4
I67432
BCL-2 - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 28-Jul-2003
C;Accession: I67432
R;Tilly, J.L.; Tilly, K.I.; Kenton, M.L.; Johnson, A.L.
Endocrinology 136, 232-241, 1995
A;Title: Expression of members of the bcl-2 gene family in the immature rat
ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell
apoptosis is associated with decreased bax and constitutive bcl-2 and bcl-xlong
messenger ribonucleic acid levels.
A;Reference number: I53295; MUID:95129487; PMID:7828536
A;Accession: I67432
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-236 <RES>
A;Cross-references: EMBL:U34964; NID:g1004378; PIDN:AAA77687.1; PID:g1004379
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match           100.0%;  Score 49;  DB 2;  Length 236;
  Best Local Similarity  100.0%;  Pred. No. 0.085;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109
```

```
RESULT 5
I53744
gene bcl-2 protein - rat
C;Species: Rattus norvegicus (Norway rat)
```

C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 28-Jul-2003
C;Accession: I53744
R;Sato, T.; Irie, S.; Krajewski, S.; Reed, J.C.
Gene 140, 291-292, 1994
A;Title: Cloning and sequencing of a cDNA encoding the rat Bcl-2 protein.
A;Reference number: I53744; MUID:94193015; PMID:8144041
A;Accession: I53744
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-236 <RES>
A;Cross-references: GB:L14680; NID:g408946; PIDN:AAA53662.1; PID:g408947
C;Genetics:
A;Gene: bcl-2
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match   100.0%; Score 49; DB 2; Length 236;
  Best Local Similarity   100.0%; Pred. No. 0.085;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FSRRYRRDF 9
              |||||||||
Db   101 FSRRYRRDF 109

RESULT 6
JC7383
B-cell lymphoma 2 protein - Chinese hamster
C;Species: Cricetulus griseus (Chinese hamster)
C;Date: 17-Nov-2000 #sequence_revision 17-Nov-2000 #text_change 28-Jul-2003
C;Accession: JC7383
R;Tomicic, M.T.; Christmann, M.; Kaina, B.
Biochem. Biophys. Res. Commun. 275, 899-903, 2000
A;Title: Cloning and functional analysis of cDNA encoding the hamster Bcl-2
protein.
A;Reference number: JC7383
A;Contents: Ovary
A;Accession: JC7383
A;Molecule type: mRNA
A;Residues: 1-236 <TOM>
A;Cross-references: GB:AJ271720
C;Comment: This protein has anti-apoptotic function, and supports cell survival.
C;Genetics:
A;Gene: bcl-2
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: B-cell lymphoma; ovary

  Query Match   100.0%; Score 49; DB 2; Length 236;
  Best Local Similarity   100.0%; Pred. No. 0.085;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FSRRYRRDF 9
              |||||||||
Db   101 FSRRYRRDF 109

RESULT 7
TVHUA1
transforming protein bcl-2, splice form alpha - human
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1988 #sequence_revision 07-Jun-1996 #text_change 28-Jul-2003
C;Accession: C37332; A29409; S02452; A24428; A27622; B27622
R;Eguchi, Y.; Ewert, D.L.; Tsujimoto, Y.
Nucleic Acids Res. 20, 4187-4192, 1992
A;Title: Isolation and characterization of the chicken bcl-2 gene: expression in
a variety of tissues including lymphoid and neuronal organs in adult and embryo.
A;Reference number: A37332; MUID:92375724; PMID:1508712
A;Accession: C37332
A;Status: nucleic acid sequence not shown; not compared with conceptual
translation
A;Molecule type: DNA
A;Residues: 1-239 <EGU>
A;Note: this report is a correction
R;Tsujimoto, Y.; Croce, C.M.
Proc. Natl. Acad. Sci. U.S.A. 83, 5214-5218, 1986
A;Title: Analysis of the structure, transcripts, and protein products of bcl-2,
the gene involved in human follicular lymphoma.
A;Reference number: A29409; MUID:86259760; PMID:3523487
A;Accession: A29409
A;Molecule type: mRNA
A;Residues: 1-95,'A',97-109,'G',111-236,'S',238-239 <TSU>
A;Cross-references: GB:M13994; NID:g179366; PIDN:AAA51813.1; PID:g179367
A;Note: this sequence has been corrected in reference A37332
R;Seto, M.; Jaeger, U.; Hockett, R.D.; Graninger, W.; Bennett, S.; Goldman, P.;
Korsmeyer, S.J.
EMBO J. 7, 123-131, 1988
A;Title: Alternative promoters and exons, somatic mutation and deregulation of
the Bcl-2--Ig fusion gene in lymphoma.
A;Reference number: S02452; MUID:88196071; PMID:2834197
A;Accession: S02452
A;Molecule type: mRNA
A;Residues: 1-239 <SET>
R;Cleary, M.L.; Smith, S.D.; Sklar, J.
Cell 47, 19-28, 1986
A;Title: Cloning and structural analysis of cDNAs for bcl-2 and a hybrid bcl-
2/immunoglobulin transcript resulting from the t(14;18) translocation.
A;Reference number: A24428; MUID:87002488; PMID:2875799
A;Accession: A24428
A;Molecule type: mRNA
A;Residues: 1-58,'T',60-116,'R',118-239 <CLE>
A;Cross-references: GB:M14745; NID:g179370; PIDN:AAA35591.1; PID:g179371
R;Hua, C.; Zorn, S.; Jensen, J.P.; Coupland, R.W.; Ko, H.S.; Wright, J.J.;
Bakhshi, A.
Oncogene Res. 2, 263-275, 1988
A;Title: Consequences of the t(14;18) chromosomal translocation in follicular
lymphoma: deregulated expression of a chimeric and mutated BCL-2 gene.
A;Reference number: A27622; MUID:88217344; PMID:3285301
A;Accession: A27622
A;Molecule type: mRNA
A;Residues: 1-58,'T',60-239 <HUA>
A;Accession: B27622
A;Molecule type: DNA
A;Residues: 1-6,'S',8-58,'T',60-128,'C',130-239 <HUA2>
A;Note: the sequence was determined from the germline gene

C;Comment: Constitutive expression of BCL2 following t(14:18) chromosomal translocation is typically found in follicular lymphoma.
C;Genetics:
A;Gene: GDB:BCL2
A;Cross-references: GDB:119031; OMIM:151430
A;Map position: 18q21.3-18q21.3
C;Function:
A;Description: blocks apoptosis in hematopoietic cells
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: alternative splicing; apoptosis; B-cell lymphoma; follicular lymphoma; proto-oncogene; transforming protein; transmembrane protein

  Query Match 100.0%; Score 49; DB 1; Length 239;
  Best Local Similarity 100.0%; Pred. No. 0.086;
  Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
  |||||||||
Db 104 FSRRYRRDF 112

RESULT 8
B37332
transforming protein (bcl-2-beta) - chicken
C;Species: Gallus gallus (chicken)
C;Date: 03-Mar-1993 #sequence_revision 03-Mar-1993 #text_change 28-Jul-2003
C;Accession: B37332; S35452
R;Eguchi, Y.; Ewert, D.L.; Tsujimoto, Y.
Nucleic Acids Res. 20, 4187-4192, 1992
A;Title: Isolation and characterization of the chicken bcl-2 gene: expression in a variety of tissues including lymphoid and neuronal organs in adult and embryo.
A;Reference number: A37332; MUID:92375724; PMID:1508712
A;Accession: B37332
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-216 <EGU>
A;Cross-references: EMBL:D11381; EMBL:D11382
C;Superfamily: bcl apoptosis regulator, inhibitory type

  Query Match 91.8%; Score 45; DB 2; Length 216;
  Best Local Similarity 88.9%; Pred. No. 0.43;
  Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
  |||||:|||
Db 98 FSRRYQRDF 106

RESULT 9
S24390
transforming protein (Bcl-2) homolog - chicken
C;Species: Gallus gallus (chicken)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 28-Jul-2003
C;Accession: S24390
R;Cazals-Hatem, D.L.; Louie, D.C.; Tanaka, S.; Reed, J.C.
Biochim. Biophys. Acta 1132, 109-113, 1992
A;Title: Molecular cloning and DNA sequence analysis of cDNA encoding chicken homologue of the Bcl-2 oncoprotein.
A;Reference number: S24390; MUID:92379084; PMID:1511008
A;Accession: S24390
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-232 <CAZ>
A;Cross-references: EMBL:Z11961; NID:g62969; PIDN:CAA78018.1; PID:g62970
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: mitochondrion; transmembrane protein

  Query Match 91.8%; Score 45; DB 2; Length 232;
  Best Local Similarity 88.9%; Pred. No. 0.46;
  Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
  |||||:|||
Db 97 FSRRYQRDF 105

RESULT 10
A37332
transforming protein (bcl-2-alpha) - chicken
C;Species: Gallus gallus (chicken)
C;Date: 03-Mar-1993 #sequence_revision 03-Mar-1993 #text_change 28-Jul-2003
C;Accession: A37332; S35453
R;Eguchi, Y.; Ewert, D.L.; Tsujimoto, Y.
Nucleic Acids Res. 20, 4187-4192, 1992
A;Title: Isolation and characterization of the chicken bcl-2 gene: expression in a variety of tissues including lymphoid and neuronal organs in adult and embryo.
A;Reference number: A37332; MUID:92375724; PMID:1508712
A;Accession: A37332
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-233 <EGU>
A;Cross-references: EMBL:D11381
C;Genetics:
A;Introns: 189/3
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: mitochondrion; transforming protein; transmembrane protein

  Query Match 91.8%; Score 45; DB 2; Length 233;
  Best Local Similarity 88.9%; Pred. No. 0.46;
  Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
  |||||:|||
Db 98 FSRRYQRDF 106

RESULT 11
TVHUB1
transforming protein bcl-2, splice form beta - human
N;Alternate names: apoptosis regulator bcl-2
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 28-Jul-2003
C;Accession: B29409; I52566; D37332

R;Tsujimoto, Y.; Croce, C.M.
Proc. Natl. Acad. Sci. U.S.A. 83, 5214-5218, 1986
A;Title: Analysis of the structure, transcripts, and protein products of bcl-2, the gene involved in human follicular lymphoma.
A;Reference number: A29409; MUID:86259760; PMID:3523487
A;Accession: B29409
A;Molecule type: mRNA
A;Residues: 1-205 <TSU>
A;Cross-references: GB:M13995; NID:g179368; PIDN:AAA51814.1; PID:g179369
R;Tanaka, S.; Louie, D.C.; Kant, J.A.; Reed, J.C.
Blood 79, 229-237, 1992
A;Title: Frequent incidence of somatic mutations in translocated BCL2 oncogenes of non-Hodgkin's lymphomas.
A;Reference number: I52566; MUID:92096610; PMID:1339299
A;Accession: I52566
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-131 <TAN>
A;Cross-references: GB:S72602; NID:g241046; PIDN:AAD14111.1; PID:g4261811
R;Eguchi, Y.; Ewert, D.L.; Tsujimoto, Y.
Nucleic Acids Res. 20, 4187-4192, 1992
A;Title: Isolation and characterization of the chicken bcl-2 gene: expression in a variety of tissues including lymphoid and neuronal organs in adult and embryo.
A;Reference number: A37332; MUID:92375724; PMID:1508712
A;Accession: D37332
A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-33,'E',34-95,'T',97-109,'R',111-205 <EGU>
C;Genetics:
A;Gene: GDB:BCL2
A;Cross-references: GDB:119031; OMIM:151430
A;Map position: 18q21.3-18q21.3
C;Function:
A;Description: blocks apoptosis in hematopoietic cells
C;Superfamily: bcl apoptosis regulator, inhibitory type
C;Keywords: alternative splicing; apoptosis; B-cell lymphoma; follicular lymphoma; proto-oncogene; transforming protein

  Query Match   85.7%; Score 42; DB 1; Length 205;
  Best Local Similarity   88.9%; Pred. No. 1.5;
  Matches   8; Conservative   0; Mismatches   1; Indels   0; Gaps   0;

Qy   1 FSRRYRRDF 9
              |||||| ||
Db   104 FSRRYRGDF 112

RESULT 12
F70415
CTP synthetase - Aquifex aeolicus
C;Species: Aquifex aeolicus
C;Date: 08-May-1998 #sequence_revision 08-May-1998 #text_change 16-Jul-1999
C;Accession: F70415
R;Deckert, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.; Lenox, A.L.; Graham, D.E.; Overbeek, R.; Snead, M.A.; Keller, M.; Aujay, M.; Huber, R.; Feldman, R.A.; Short, J.M.; Olson, G.J.; Swanson, R.V.
Nature 392, 353-358, 1998
A;Title: The complete genome of the hyperthermophilic bacterium Aquifex aeolicus.
A;Reference number: A70300; MUID:98196666; PMID:9537320
A;Accession: F70415
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-531 <AQF>
A;Cross-references: GB:AE000735; NID:g2983749; PIDN:AAC07314.1; PID:g2983754; GB:AE000657
A;Experimental source: strain VF5
C;Genetics:
A;Gene: pyrG
C;Superfamily: CTP synthase

  Query Match   77.6%; Score 38; DB 2; Length 531;
  Best Local Similarity   66.7%; Pred. No. 20;
  Matches   6; Conservative   2; Mismatches   1; Indels   0; Gaps   0;

Qy   1 FSRRYRRDF 9
              |: ||||:||
Db   460 FNNRYRKDF 468

RESULT 13
JC1493
follitropin receptor - sheep
N;Alternate names: follicle stimulating hormone receptor
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 21-Jan-2000
C;Accession: JC1493; I47080
R;Khan, H.; Yarney, T.A.; Sairam, M.R.
Biochem. Biophys. Res. Commun. 190, 888-894, 1993
A;Title: Cloning of alternately spliced mRNA transcripts coding for variants of ovine testicular follitropin receptor lacking the G protein coupling domains.
A;Reference number: JC1493; MUID:93176195; PMID:8439338
A;Accession: JC1493
A;Molecule type: mRNA
A;Residues: 1-695 <KHA>
A;Experimental source: testis
R;Yarney, T.A.; Sairam, M.R.; Khan, H.; Ravindranath, N.; Payne, S.; Seidah, N.G.
Mol. Cell. Endocrinol. 93, 219-226, 1993
A;Title: Molecular cloning and expression of the ovine testicular follicle stimulating hormone receptor.
A;Reference number: I47080; MUID:93351750; PMID:8394255
A;Accession: I47080
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-695 <YAR>
A;Cross-references: GB:L07302; NID:g165884; PIDN:AAA31525.1; PID:g165885
C;Genetics:
A;Gene: FSH-R
C;Superfamily: glycoprotein hormone receptor; leucine-rich alpha-2-glycoprotein repeat homology
C;Keywords: G protein-coupled receptor; glycoprotein; transmembrane protein
F;71-95/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR>

F;191,199/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match 75.5%; Score 37; DB 2; Length 695;
  Best Local Similarity 66.7%; Pred. No. 40;
  Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
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Db 629 FTRNFRRDF 637

RESULT 14
C86264
protein F3F19.5 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001
C;Accession: C86264
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.;
Alonso, J.; Altaf, H.; Araujo, R.; Bowman, C.L.; Brooks, S.Y.; Buehler, E.;
Chan, A.; Chao, Q.; Chen, H.; Cheuk, R.F.; Chin, C.W.; Chung, M.K.; Conn, L.;
Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Dunn, P.; Etgu, P.;
Feldblyum, T.V.; Feng, J.; Fong, B.; Fujii, C.Y.; Gill, J.E.; Goldsmith, A.D.;
Haas, B.; Hansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.;
Kim, C.J.; Koo, H.L.; Kremenetskaia, I.; Kurtz, D.B.; Kwan, A.; Lam, B.; Langin-
Hooper, S.; Lee, A.; Lee, J.M.; Lenz, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu,
S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, A.; Militscher, J.; Miranda,
M.; Nguyen, M.; Nierman, W.C.; Osborne, B.I.; Pai, G.; Peterson, J.; Pham, P.K.;
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.;
Tallon, L.J.; Tambunga, G.; Toriumi, M.J.; Town, C.D.; Utterback, T.; van Aken,
S.; Vaysberg, M.; Vysotskaia, V.S.; Walker, M.; Wu, D.; Yu, G.; Fraser, C.M.;
Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Accession: C86264
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-547 <STO>
A;Cross-references: GB:AE005172; NID:g4850386; PIDN:AAD31056.1; GSPDB:GN00141
C;Genetics:
A;Gene: F3F19.5
A;Map position: 1

  Query Match 73.5%; Score 36; DB 2; Length 547;
  Best Local Similarity 66.7%; Pred. No. 49;
  Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FSRRYRRDF 9
  ||:|| :||
Db 320 FSKRYAQDF 328

RESULT 15
T49426
Type 2C Protein Phosphatase related protein [imported] - Neurospora crassa
N;Alternate names: protein B17C10.70
C;Species: Neurospora crassa
C;Date: 02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change 17-Nov-2000
C;Accession: T49426
R;Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.;
Nyakatura, G.; Mewes, H.W.; Mannhaupt, G.
submitted to the Protein Sequence Database, May 2000
A;Reference number: Z25022
A;Accession: T49426
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-622 <SCH>
A;Cross-references: EMBL:AL355926; GSPDB:GN00116; NCSP:B17C10.70
A;Experimental source: BAC clone B17C10; strain OR74A
C;Genetics:
A;Gene: NCSP:B17C10.70
A;Map position: 6
A;Introns: 239/2
C;Superfamily: Arabidopsis thaliana hypothetical protein F20M13.80

  Query Match 73.5%; Score 36; DB 2; Length 622;
  Best Local Similarity 87.5%; Pred. No. 55;
  Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FSRRYRRD 8
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Db 569 FSRRYRDD 576

Search completed: March 30, 2004, 15:41:32
Job time : 11.6667 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:31:30 ; Search time 8 Seconds
(without alignments)
58.579 Million cell updates/sec

Title: US-09-622-058-2
Perfect score: 49
Sequence: 1 FSRRYRRDF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	49	100.0	229	1	BCL2_BOVIN	O02718 bos taurus
2	49	100.0	236	1	BCL2_CRILO	Q9jjv8 cricetulus
3	49	100.0	236	1	BCL2_MOUSE	P10417 mus musculu
4	49	100.0	236	1	BCL2_RAT	P49950 rattus norv
5	49	100.0	239	1	BCL2_HUMAN	P10415 homo sapien
6	45	91.8	233	1	BCL2_CHICK	Q00709 gallus gall
7	38	77.6	531	1	PYRG_AQUAE	O67353 aquifex aeo
8	37	75.5	695	1	FSHR_SHEEP	P35379 ovis aries
9	34	69.4	148	1	SOXR_CHRVO	Q9zhi4 chromobacte
10	34	69.4	303	1	YB1_XENLA	P21573 xenopus lae
11	34	69.4	305	1	YB3_XENLA	Q00436 xenopus lae
12	34	69.4	321	1	YB1_CHICK	Q06066 gallus gall
13	34	69.4	322	1	YB1_MOUSE	P27817 m nuclease
14	34	69.4	324	1	YB1_HUMAN	P16991 h nuclease
15	34	69.4	687	1	FSHR_EQUAS	Q95179 equus asinu
16	34	69.4	692	1	FSHR_MOUSE	P35378 mus musculu
17	34	69.4	692	1	FSHR_RAT	P20395 rattus norv
18	34	69.4	694	1	FSHR_HORSE	P47799 equus cabal
19	34	69.4	695	1	FSHR_BOVIN	P35376 bos taurus
20	34	69.4	695	1	FSHR_HUMAN	P23945 homo sapien
21	34	69.4	695	1	FSHR_MACFA	P32212 macaca fasc
22	34	69.4	862	1	HELX_METTH	O27830 methanobact
23	34	69.4	1950	1	UBR1_YEAST	P19812 saccharomyc
24	33	67.3	106	1	SOXS_SALTY	Q56143 salmonella
25	33	67.3	171	1	RS4_METTH	O26142 methanobact
26	33	67.3	336	1	YN66_YEAST	P42836 saccharomyc
27	33	67.3	494	1	COBQ_METKA	Q8tvh5 methanopyru
28	33	67.3	535	1	PYRG_LACLC	O87761 lactococcus
29	33	67.3	676	1	LSHR_CALJA	O02721 callithrix
30	33	67.3	693	1	FSHR_CHICK	P79763 gallus gall
31	33	67.3	696	1	LSHR_PIG	P16582 sus scrofa
32	33	67.3	917	1	AKH2_MAIZE	P49080 zea mays (m
33	32	65.3	67	1	YO24_CAEEL	P34674 caenorhabdi
34	32	65.3	163	1	YK94_SHIFL	P37787 shigella fl
35	32	65.3	682	1	YEC3_YEAST	P39992 saccharomyc
36	32	65.3	776	1	YOK5_CAEEL	Q11177 caenorhabdi
37	32	65.3	1263	1	RPOB_THEMA	P29398 thermotoga
38	32	65.3	2190	1	CCAD_CHICK	O73700 gallus gall
39	32	65.3	3080	1	POLG_ZYMVC	P18479 z genome po
40	31	63.3	106	1	SOXS_ECOLI	P22539 escherichia
41	31	63.3	142	1	E1BS_ADE04	P10406 human adeno
42	31	63.3	145	1	HBB2_TRICR	P10786 triturus cr
43	31	63.3	166	1	VSN1_NOCAE	P50186 nocardia ae
44	31	63.3	327	1	MIS3_SCHPO	O74777 schizosacch
45	31	63.3	468	1	SYE_MYCPU	P53662 mycoplasma

ALIGNMENTS

RESULT 1
BCL2_BOVIN
ID BCL2_BOVIN STANDARD; PRT; 229 AA.
AC O02718;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Apoptosis regulator Bcl-2.
GN BCL2.
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Holstein; TISSUE=Thymus;
RX MEDLINE=98162580; PubMed=9501056;
RA Reyes R.A., Cockerell G.L.;
RT "Increased ratio of bcl-2/bax expression is associated with bovine
RT leukemia virus-induced leukemogenesis in cattle.";
RL Virology 242:184-192(1998).
CC -!- FUNCTION: Suppresses apoptosis in a variety of cell systems
CC including factor-dependent lymphohematopoietic and neural cells.

```
CC       Regulates cell death by controlling the mitochondrial membrane
CC       permeability. Appears to function in a feedback loop system with
CC       caspases. Inhibits caspase activity either by preventing the
CC       release of cytochrome c from the mitochondria and/or by binding to
CC       the apoptosis-activating factor (APAF-1) (By similarity).
CC   -!- SUBUNIT: Forms homodimers, and heterodimers with BAX, BAD, BAK and
CC       Bcl-X(L). Heterodimerization with BAX requires intact BH1 and BH2
CC       domains, and is necessary for anti-apoptotic activity. Also
CC       interacts with APAF-1, RAF-1 and TP53BP2 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Outer mitochondrial membrane, intracellular
CC       membrane of the nuclear envelope and the endoplasmic reticulum (By
CC       similarity).
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity and
CC       for interaction with RAF-1 (By similarity).
CC   -!- PTM: Phosphorylation/dephosphorylation on Ser-70 regulates Bcl2
CC       anti-apoptotic activity. Growth factor-stimulated phosphorylation
CC       on Ser-70 by PKC is required for the anti-apoptosis activity and
CC       occurs during the G2/M phase of the cell cycle (By similarity). In
CC       the absence of growth factors, Bcl2 appears to be phosphorylated
CC       by other protein kinases such as ERKs and stress-activated
CC       kinases. Dephosphorylated by protein phosphatase 2A (PP2A) (By
CC       similarity).
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity, causes the release of cytochrome c into the cytosol
CC       promoting further caspase activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U92434; AAB53319.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Transmembrane; Mitochondrion; Phosphorylation.
FT   DOMAIN       10     30       BH4.
FT   DOMAIN       64     68       POLY-PRO.
FT   DOMAIN       69     72       POLY-ALA.
FT   DOMAIN       83     97       BH3.
FT   DOMAIN      126    145       BH1.
FT   DOMAIN      177    192       BH2.
FT   TRANSMEM    202    223       POTENTIAL.
FT   SITE          34     35       CLEAVAGE (BY CASPASES) (BY SIMILARITY).
FT   MOD_RES       63     63       PHOSPHORYLATION (BY PKC) (BY SIMILARITY).
SQ   SEQUENCE   229 AA;  25099 MW;  AD1DD0AF98FFF11D CRC64;

  Query Match           100.0%;  Score 49;  DB 1;  Length 229;
  Best Local Similarity  100.0%;  Pred. No. 0.019;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         94 FSRRYRRDF 102


RESULT 2
BCL2_CRILO
ID   BCL2_CRILO     STANDARD;      PRT;   236 AA.
AC   Q9JJV8;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-2.
GN   BCL2.
OS   Cricetulus longicaudatus (Long-tailed hamster) (Chinese hamster).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC   Cricetulus.
OX   NCBI_TaxID=10030;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Ovary;
RX   MEDLINE=20431763; PubMed=10973819;
RA   Tomicic M.T., Christmann M., Kaina B.;
RT   "Cloning and functional analysis of cDNA encoding the hamster Bcl-2
RT   protein.";
RL   Biochem. Biophys. Res. Commun. 275:899-903(2000).
RN   [2]
RP   SEQUENCE FROM N.A., AND CLEAVAGE BY CASPASES.
RX   MEDLINE=21092839; PubMed=11181062;
RA   Tomicic M.T., Kaina B.;
RT   "Hamster Bcl-2 protein is cleaved in vitro and in cells by caspase-9
RT   and caspase-3.";
RL   Biochem. Biophys. Res. Commun. 281:404-408(2001).
CC   -!- FUNCTION: Suppresses apoptosis in a variety of cell systems
CC       including factor-dependent lymphohematopoietic and neural cells.
CC       Regulates cell death by controlling the mitochondrial membrane
CC       permeability. Appears to function in a feedback loop system with
CC       caspases. Inhibits caspase activity either by preventing the
CC       release of cytochrome c from the mitochondria and/or by binding to
CC       the apoptosis-activating factor (APAF-1) (By similarity).
```

```
CC   -!- SUBUNIT: Forms homodimers, and heterodimers with BAX, BAD, BAK and
CC       Bcl-X(L). Heterodimerization with BAX requires intact BH1 and BH2
CC       domains, and is necessary for anti-apoptotic activity. Also
CC       interacts with APAF-1, RAF-1 and TP53BP2 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Outer mitochondrial membrane, intracellular
CC       membrane of the nuclear envelope and the endoplasmic reticulum.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity and
CC       for interaction with RAF-1 (By similarity).
CC   -!- PTM: Phosphorylation/dephosphorylation on Ser-70 regulates Bcl2
CC       anti-apoptotic activity. Growth factor-stimulated phosphorylation
CC       on Ser-70 by PKC is required for the anti-apoptosis activity and
CC       occurs during the G2/M phase of the cell cycle (By similarity). In
CC       the absence of growth factors, Bcl2 appears to be phosphorylated
CC       by other protein kinases such as ERKs and stress-activated kinases
CC       (By similarity). Dephosphorylated by protein phosphatase 2A (PP2A)
CC       (By similarity).
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity, causes the release of cytochrome c into the cytosol
CC       promoting further caspase activity.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; AJ271720; CAB92245.1; -.
DR   PIR; JC7383; JC7383.
DR   HSSP; Q07817; 1MAZ.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Transmembrane; Mitochondrion; Phosphorylation.
FT   DOMAIN       10     30       BH4.
FT   DOMAIN       90    104       BH3.
FT   DOMAIN      133    152       BH1.
FT   DOMAIN      184    199       BH2.
FT   TRANSMEM    209    230       POTENTIAL.
FT   SITE          64     65       CLEAVAGE (BY CASPASE-3 AND CASPASE-9).
FT   MOD_RES       70     70       PHOSPHORYLATION (BY PKC) (BY SIMILARITY).
SQ   SEQUENCE   236 AA;  26491 MW;  BECADF1EF3337228 CRC64;

  Query Match           100.0%;  Score 49;  DB 1;  Length 236;
  Best Local Similarity  100.0%;  Pred. No. 0.02;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109


RESULT 3
BCL2_MOUSE
ID   BCL2_MOUSE     STANDARD;      PRT;   236 AA.
AC   P10417; P10418;
DT   01-MAR-1989 (Rel. 10, Created)
DT   01-APR-1993 (Rel. 25, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-2.
GN   BCL2 OR BCL-2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS ALPHA AND BETA).
RC   STRAIN=BALB/c; TISSUE=Liver;
RX   MEDLINE=87187643; PubMed=3032455;
RA   Negrini M., Silini E., Kozak C., Tsujimoto Y., Croce C.M.;
RT   "Molecular analysis of mbcl-2: structure and expression of the murine
RT   gene homologous to the human gene involved in follicular lymphoma.";
RL   Cell 49:455-463(1987).
RN   [2]
RP   REVISIONS TO 221-222.
RX   MEDLINE=92375724; PubMed=1508712;
RA   Eguchi Y., Ewert D.L., Tsujimoto Y.;
RT   "Isolation and characterization of the chicken bcl-2 gene: expression
RT   in a variety of tissues including lymphoid and neuronal organs in
RT   adult and embryo.";
RL   Nucleic Acids Res. 20:4187-4192(1992).
RN   [3]
RP   PHOSPHORYLATION BY PKC, AND MUTAGENESIS OF SERINE RESIDUES.
RX   MEDLINE=97277291; PubMed=9115213;
RA   Ito T., Deng X., Carr B., May W.S. Jr.;
RT   "Bcl-2 phosphorylation required for anti-apoptosis function.";
RL   J. Biol. Chem. 272:11671-11673(1997).
RN   [4]
RP   DEPHOSPHORYLATION BY PP2A.
RX   MEDLINE=99069407; PubMed=9852076;
RA   Deng X., Ito T., Carr B., Mumby M., May W.S. Jr.;
RT   "Reversible phosphorylation of Bcl2 following interleukin 3 or
RT   bryostatin 1 is mediated by direct interaction with protein
RT   phosphatase 2A*.";
RL   J. Biol. Chem. 273:34157-34163(1998).
```

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CC   -!- FUNCTION: Suppresses apoptosis in a variety of cell systems
CC       including factor-dependent lymphohematopoietic and neural cells.
CC       Regulates cell death by controlling the mitochondrial membrane
CC       permeability. Appears to function in a feedback loop system with
CC       caspases. Inhibits caspase activity either by preventing the
CC       release of cytochrome c from the mitochondria and/or by binding to
CC       the apoptosis-activating factor (APAF-1).
CC   -!- SUBUNIT: Forms homodimers, and heterodimers with BAX, BAD, BAK and
CC       Bcl-X(L). Heterodimerization with BAX requires intact BH1 and BH2
CC       domains, and is necessary for anti-apoptotic activity. Interacts
CC       with TP53BP2 (By similarity). Also interacts with APAF-1 and
CC       RAF-1.
CC   -!- SUBCELLULAR LOCATION: Outer mitochondrial membrane, intracellular
CC       membrane of the nuclear envelope and the endoplasmic reticulum.
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Alpha;
CC         IsoId=P10417-1; Sequence=Displayed;
CC       Name=Beta;
CC         IsoId=P10417-2; Sequence=VSP_000513;
CC   -!- TISSUE SPECIFICITY: Expressed in a variety of tissues.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity and
CC       for interaction with RAF-1.
CC   -!- PTM: Phosphorylation/dephosphorylation on Ser-70 regulates Bcl2
CC       anti-apoptotic activity. Growth factor-stimulated phosphorylation
CC       on Ser-70 by PKC is required for the anti-apoptosis activity and
CC       occurs during the G2/M phase of the cell cycle. In the absence of
CC       growth factors, Bcl2 appears to be phosphorylated by other protein
CC       kinases such as ERKs and stress-activated kinases.
CC       Dephosphorylated by protein phosphatase 2A (PP2A).
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity, causes the release of cytochrome c into the cytosol
CC       promoting further caspase activity.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; L31532; AAA37282.1; -.
DR   EMBL; M16506; AAA37282.1; JOINED.
DR   EMBL; M16506; AAA37281.1; -.
DR   PIR; B25960; TVMSB1.
DR   HSSP; Q07817; 1MAZ.
DR   MGD; MGI:88138; Bcl2.
DR   GO; GO:0005829; C:cytosol; IDA.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; IDA.
DR   GO; GO:0005515; F:protein binding; IPI.
DR   GO; GO:0006915; P:apoptosis; IDA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Alternative splicing; Transmembrane; Mitochondrion;
KW   Phosphorylation.
FT   DOMAIN       10     30       BH4.
FT   DOMAIN       90    104       BH3.
FT   DOMAIN      133    152       BH1.
FT   DOMAIN      184    199       BH2.
FT   TRANSMEM    209    230       POTENTIAL.
FT   SITE          34     35       CLEAVAGE (BY CASPASES) (BY SIMILARITY).
FT   MOD_RES       70     70       PHOSPHORYLATION (BY PKC).
FT   VARSPLIC     193    236       DAFVELYGPSMRPLFDFSWLSLKTLLSLALVGACITLGAYL
FT                                 GHK -> VGACLVE (in isoform Beta).
FT                                 /FTId=VSP_000513.
SQ   SEQUENCE   236 AA;  26425 MW;  AA85EF6B0766BE0A CRC64;

  Query Match             100.0%;  Score 49;  DB 1;  Length 236;
  Best Local Similarity   100.0%;  Pred. No. 0.02;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109


RESULT 4
BCL2_RAT
ID   BCL2_RAT       STANDARD;      PRT;   236 AA.
AC   P49950; Q62837; Q64032;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-2.
GN   BCL2 OR BCL-2.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=94193015; PubMed=8144041;
RA   Sato T., Irie S., Krajewski S., Reed J.C.;
```

```
RT   "Cloning and sequencing of a cDNA encoding the rat Bcl-2 protein.";
RL   Gene 140:291-292(1994).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley; TISSUE=Ovary;
RX   MEDLINE=95129487; PubMed=7828536;
RA   Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
RT   "Expression of members of the bcl-2 gene family in the immature rat
RT   ovary: equine chorionic gonadotropin-mediated inhibition of granulosa
RT   cell apoptosis is associated with decreased bax and constitutive
RT   bcl-2 and bcl-xlong messenger ribonucleic acid levels.";
RL   Endocrinology 136:232-241(1995).
RN   [3]
RP   SEQUENCE OF 19-172 FROM N.A.
RX   MEDLINE=95059917; PubMed=7969891;
RA   Castren E., Ohga Y., Berzaghi M.P., Tzimagiorgis G., Thoenen H.,
RA   Lindholm D.;
RT   "bcl-2 messenger RNA is localized in neurons of the developing and
RT   adult rat brain.";
RL   Neuroscience 61:165-177(1994).
CC   -!- FUNCTION: Suppresses apoptosis in a variety of cell systems
CC       including factor-dependent lymphohematopoietic and neural cells.
CC       Regulates cell death by controlling the mitochondrial membrane
CC       permeability. Appears to function in a feedback loop system with
CC       caspases. Inhibits caspase activity either by preventing the
CC       release of cytochrome c from the mitochondria and/or by binding to
CC       the apoptosis-activating factor (APAF-1).
CC   -!- SUBUNIT: Forms homodimers, and heterodimers with BAX, BAD, BAK and
CC       Bcl-X(L). Heterodimerization with BAX requires intact BH1 and BH2
CC       domains, and is necessary for anti-apoptotic activity. Also
CC       interacts with APAF-1, RAF-1 and TP53BP2 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Outer mitochondrial membrane, intracellular
CC       membrane of the nuclear envelope and the endoplasmic reticulum.
CC   -!- TISSUE SPECIFICITY: Expressed in a variety of tissues, with
CC       highest levels in reproductive tissues. In the adult brain,
CC       expression is localized in mitral cells of the olfactory bulb,
CC       granule and pyramidal neurons of hippocampus, pontine nuclei,
CC       cerebellar granule neurons, and in ependymal cells. In prenatal
CC       brain, expression is higher and localized in the neuroepithelium
CC       and in the cortical plate.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity and
CC       for interaction with RAF-1 (By similarity).
CC   -!- PTM: Phosphorylation/dephosphorylation on Ser-70 regulates Bcl2
CC       anti-apoptotic activity. Growth factor-stimulated phosphorylation
CC       on Ser-70 by PKC is required for the anti-apoptosis activity and
CC       occurs during the G2/M phase of the cell cycle. In the absence of
CC       growth factors, Bcl2 appears to be phosphorylated by other protein
CC       kinases such as ERKs and stress-activated kinases.
CC       Dephosphorylated by protein phosphatase 2A (PP2A) (By similarity).
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity, causes the release of cytochrome c into the cytosol
CC       promoting further caspase activity (By similarity).
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; L14680; AAA53662.1; -.
DR   EMBL; U34964; AAA77687.1; -.
DR   EMBL; S74122; -; NOT_ANNOTATED_CDS.
DR   PIR; I53744; I53744.
DR   PIR; I67432; I67432.
DR   HSSP; Q07817; 1MAZ.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis; Transmembrane; Mitochondrion; Phosphorylation.
FT   DOMAIN       10     30       BH4.
FT   DOMAIN       90    104       BH3.
FT   DOMAIN      133    152       BH1.
FT   DOMAIN      184    199       BH2.
FT   TRANSMEM    209    230       POTENTIAL.
FT   SITE          34     35       CLEAVAGE (BY CASPASES) (BY SIMILARITY).
FT   MOD_RES       70     70       PHOSPHORYLATION (BY PKC) (BY SIMILARITY).
FT   CONFLICT      42     42       A -> R (IN REF. 2).
FT   CONFLICT     157    157       E -> G (IN REF. 1).
FT   CONFLICT     164    164       S -> Y (IN REF. 2).
FT   CONFLICT     212    212       L -> Q (IN REF. 2).
SQ   SEQUENCE   236 AA;  26622 MW;  E7688CB9071A872A CRC64;

  Query Match             100.0%;  Score 49;  DB 1;  Length 236;
  Best Local Similarity   100.0%;  Pred. No. 0.02;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109


RESULT 5
BCL2_HUMAN
ID   BCL2_HUMAN     STANDARD;      PRT;   239 AA.
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AC   P10415; P10416; Q13842; Q16197;
DT   01-MAR-1989 (Rel. 10, Created)
DT   01-APR-1993 (Rel. 25, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-2.
GN   BCL2.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS ALPHA AND BETA).
RX   MEDLINE=86259760; PubMed=3523487;
RA   Tsujimoto Y., Croce C.M.;
RT   "Analysis of the structure, transcripts, and protein products of
RT   bcl-2, the gene involved in human follicular lymphoma.";
RL   Proc. Natl. Acad. Sci. U.S.A. 83:5214-5218(1986).
RN   [2]
RP   REVISIONS TO 96; 110 AND 237.
RX   MEDLINE=92375724; PubMed=1508712;
RA   Eguchi Y., Ewert D.L., Tsujimoto Y.;
RT   "Isolation and characterization of the chicken bcl-2 gene: expression
RT   in a variety of tissues including lymphoid and neuronal organs in
RT   adult and embryo.";
RL   Nucleic Acids Res. 20:4187-4192(1992).
RN   [3]
RP   SEQUENCE FROM N.A. (ISOFORM ALPHA).
RX   MEDLINE=87002488; PubMed=2875799;
RA   Cleary M.L., Smith S.D., Sklar J.;
RT   "Cloning and structural analysis of cDNAs for bcl-2 and a hybrid bcl-
RT   2/immunoglobulin transcript resulting from the t(14;18)
RT   translocation.";
RL   Cell 47:19-28(1986).
RN   [4]
RP   SEQUENCE FROM N.A. (ISOFORM ALPHA).
RX   MEDLINE=88196071; PubMed=2834197;
RA   Seto M., Jaeger U., Hockett R.D., Graninger W., Bennett S.,
RA   Goldman P., Korsmeyer S.J.;
RT   "Alternative promoters and exons, somatic mutation and deregulation
RT   of the Bcl-2-Ig fusion gene in lymphoma.";
RL   EMBO J. 7:123-131(1988).
RN   [5]
RP   SEQUENCE FROM N.A. (ISOFORM ALPHA), AND VARIANT THR-43.
RA   Rieder M.J., Livingston R.J., Daniels M.R., Montoya M.A., Chung M.-W.,
RA   Miyamoto K.E., Nguyen C.P., Nguyen D.A., Poel C.L., Robertson P.D.,
RA   Schackwitz W.S., Sherwood J.K., Witrak L.A., Nickerson D.A.;
RL   Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
RN   [6]
RP   SEQUENCE FROM N.A. (ISOFORM ALPHA).
RC   TISSUE=Testis;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [7]
RP   SEQUENCE OF 1-131 FROM N.A. (ISOFORM ALPHA), AND VARIANTS
RP   NON-HODGKIN'S LYMPHOMA SER-59 AND ILE-93.
RX   MEDLINE=92096610; PubMed=1339299;
RA   Tanaka S., Louie D.C., Kant J.A., Reed J.C.;
RT   "Frequent incidence of somatic mutations in translocated BCL2
RT   oncogenes of non-Hodgkin's lymphomas.";
RL   Blood 79:229-237(1992).
RN   [8]
RP   SUBCELLULAR LOCATION.
RX   MEDLINE=91066924; PubMed=2250705;
RA   Hockenbery D., Nunez G., Milliman C., Schreiber R.D., Korsmeyer S.J.;
RT   "Bcl-2 is an inner mitochondrial membrane protein that blocks
RT   programmed cell death.";
RL   Nature 348:334-336(1990).
RN   [9]
RP   MUTAGENESIS.
RX   MEDLINE=94239528; PubMed=8183370;
RA   Yin X.-M., Oltvai Z.N., Korsmeyer S.J.;
RT   "BH1 and BH2 domains of Bcl-2 are required for inhibition of
RT   apoptosis and heterodimerization with Bax.";
RL   Nature 369:321-323(1994).
RN   [10]
RP   CLEAVAGE BY CASPASES, AND MUTAGENESIS.
RX   MEDLINE=98057466; PubMed=9395403;
RA   Cheng E.H.-Y., Kirsch D.G., Clem R.J., Ravi R., Kastan M.B., Bedi A.,
RA   Ueno K., Hardwick J.M.;
RT   "Conversion of Bcl-2 to a Bax-like death effector by caspases.";
RL   Science 278:1966-1988(1997).
RN   [11]
RP   INTERACTION WITH TP53BP2.
RX   MEDLINE=96251339; PubMed=8668206;
RA   Naumovski L., Cleary M.L.;
RT   "The p53-binding protein 53BP2 also interacts with Bcl2 and impedes
RT   cell cycle progression at G2/M.";
RL   Mol. Cell. Biol. 16:3884-3892(1996).
RN   [12]
RP   REVIEW ON PHOSPHORYLATION.
RX   MEDLINE=21260650; PubMed=11368354;
RA   Ruvolo P.P., Deng X., May W.S.;
RT   "Phosphorylation of Bcl2 and regulation of apoptosis.";
RL   Leukemia 15:515-522(2001).
RN   [13]
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RP   PHOSPHORYLATION BY ASK1/JNK1.
RX   MEDLINE=20036804; PubMed=10567572;
RA   Yamamoto K., Ichijo H., Korsmeyer S.J.;
RT   "BCL-2 is phosphorylated and inactivated by an ASK1/Jun N-terminal
RT   protein kinase pathway normally activated at G(2)/M.";
RL   Mol. Cell. Biol. 19:8469-8478(1999).
CC   -!- FUNCTION: Suppresses apoptosis in a variety of cell systems
CC       including factor-dependent lymphohematopoietic and neural cells.
CC       Regulates cell death by controlling the mitochondrial membrane
CC       permeability. Appears to function in a feedback loop system with
CC       caspases. Inhibits caspase activity either by preventing the
CC       release of cytochrome c from the mitochondria and/or by binding to
CC       the apoptosis-activating factor (APAF-1).
CC   -!- SUBUNIT: Forms homodimers, and heterodimers with BAX, BAD, BAK and
CC       Bcl-X(L). Heterodimerization with BAX requires intact BH1 and BH2
CC       domains, and is necessary for anti-apoptotic activity (By
CC       similarity). Also interacts with APAF-1, RAF-1 and TP53BP2.
CC   -!- SUBCELLULAR LOCATION: Outer mitochondrial membrane, intracellular
CC       membrane of the nuclear envelope and the endoplasmic reticulum.
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Alpha;
CC         IsoId=P10415-1; Sequence=Displayed;
CC       Name=Beta;
CC         IsoId=P10415-2; Sequence=VSP_000512;
CC   -!- TISSUE SPECIFICITY: Expressed in a variety of tissues.
CC   -!- DOMAIN: The BH4 domain is required for anti-apoptotic activity and
CC       for interaction with RAF-1.
CC   -!- PTM: Phosphorylation/dephosphorylation on Ser-70 regulates Bcl2
CC       anti-apoptotic activity. Growth factor-stimulated phosphorylation
CC       on Ser-70 by PKC is required for the anti-apoptosis activity and
CC       occurs during the G2/M phase of the cell cycle. In the absence of
CC       growth factors, Bcl2 appears to be phosphorylated by other protein
CC       kinases such as ERKs and stress-activated kinases.
CC       Dephosphorylated by protein phosphatase 2A (PP2A) (By similarity).
CC   -!- PTM: Proteolytically cleaved by caspases during apoptosis. The
CC       cleaved protein, lacking the BH4 domain, has pro-apoptotic
CC       activity, causes the release of cytochrome c into the cytosol
CC       promoting further caspase activity.
CC   -!- DISEASE: Involved in follicular lymphoma (FL) (also known as type
CC       II chronic lymphatic leukemia) by a chromosomal translocation
CC       t(14;18)(q32;q21) which involves BCL2 and immunoglobulin gene
CC       regions. BCL2 mutations found in non-Hodgin's lymphomas carrying
CC       the chromosomal translocation could be attributed to the Ig
CC       somatic hypermutation mechanism resulting in nucleotide
CC       transitions.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 3 (BH3) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   -!- DATABASE: NAME=Atlas Genet. Cytogenet. Oncol. Haematol.;
CC
WWW="http://www.infobiogen.fr/services/chromcancer/Genes/BCL2ID49.html".
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M13994; AAA51813.1; ALT_SEQ.
DR   EMBL; M13995; AAA51814.1; ALT_SEQ.
DR   EMBL; M14745; AAA35591.1; -.
DR   EMBL; X06487; CAA29778.1; -.
DR   EMBL; AY220759; AAO26045.1; -.
DR   EMBL; BC027258; AAH27258.1; -.
DR   EMBL; S72602; AAD14111.1; ALT_SEQ.
DR   PIR; B29409; TVHUB1.
DR   PIR; C37332; TVHUA1.
DR   PDB; 1G5M; 21-MAR-01.
DR   PDB; 1GJH; 13-JUN-01.
DR   Genew; HGNC:990; BCL2.
DR   MIM; 151430; -.
DR   GO; GO:0005743; C:mitochondrial inner membrane; TAS.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; TAS.
DR   GO; GO:0006916; P:anti-apoptosis; TAS.
DR   GO; GO:0006959; P:humoral immune response; TAS.
DR   GO; GO:0008285; P:negative regulation of cell proliferation; TAS.
DR   GO; GO:0000074; P:regulation of cell cycle; TAS.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
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  Query Match           100.0%;  Score 49;  DB 1;  Length 239;
  Best Local Similarity  100.0%;  Pred. No. 0.02;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
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Db        104 FSRRYRRDF 112
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Search completed: March 30, 2004, 15:38:22
Job time : 9 secs
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:32:10 ; Search time 33 Seconds
(without alignments)
86.050 Million cell updates/sec

Title: US-09-622-058-2
Perfect score: 49
Sequence: 1 FSRRYRRDF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_25:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	49	100.0	91	11	Q923W5	Q923w5 peromyscus
2	49	100.0	91	11	Q923W6	Q923w6 peromyscus
3	49	100.0	153	6	Q7YRB6	Q7yrb6 canis famil
4	49	100.0	185	6	Q8MJ81	Q8mj81 bos taurus
5	49	100.0	199	11	Q8C5P0	Q8c5p0 mus musculu
6	49	100.0	235	6	Q8I008	Q8i008 felis silve
7	49	100.0	236	11	Q923R6	Q923r6 cricetulus
8	49	100.0	236	11	Q8BQK4	Q8bqk4 mus musculu
9	49	100.0	236	11	Q7TSN8	Q7tsn8 rattus norv
10	38	77.6	257	2	Q83YC6	Q83yc6 streptomyce
11	38	77.6	378	10	Q943A3	Q943a3 oryza sativ
12	37	75.5	226	13	Q9I9J9	Q9i9j9 ambystoma m
13	37	75.5	616	16	Q8XRT4	Q8xrt4 ralstonia s
14	37	75.5	701	13	Q9DGC6	Q9dgc6 oreochromis
15	36	73.5	166	11	Q9CSW5	Q9csw5 mus musculu
16	36	73.5	335	16	Q92PQ2	Q92pq2 rhizobium m
17	36	73.5	507	4	Q86WY0	Q86wy0 homo sapien
18	36	73.5	547	10	Q9SAD8	Q9sad8 arabidopsis
19	36	73.5	594	3	Q9P6E2	Q9p6e2 neurospora
20	36	73.5	608	10	Q8RWK8	Q8rwk8 arabidopsis
21	36	73.5	689	4	Q86WU6	Q86wu6 homo sapien
22	36	73.5	748	11	Q8C2E9	Q8c2e9 mus musculu
23	36	73.5	759	16	Q8XUF9	Q8xuf9 ralstonia s
24	36	73.5	869	4	Q9NYF8	Q9nyf8 homo sapien
25	36	73.5	917	11	Q8K019	Q8k019 mus musculu
26	36	73.5	920	4	Q14673	Q14673 homo sapien
27	36	73.5	1645	11	Q7TP73	Q7tp73 rattus norv
28	35	71.4	197	16	Q88IX0	Q88ix0 pseudomonas
29	35	71.4	285	5	Q9N8P6	Q9n8p6 trypanosoma
30	35	71.4	301	16	Q88K66	Q88k66 pseudomonas
31	35	71.4	375	16	Q988I6	Q988i6 rhizobium l
32	35	71.4	4610	13	Q8AXB7	Q8axb7 brachydanio
33	34	69.4	83	11	Q8BRJ5	Q8brj5 mus musculu
34	34	69.4	137	16	Q83ER9	Q83er9 coxiella bu
35	34	69.4	144	13	Q7T3B2	Q7t3b2 brachydanio
36	34	69.4	206	16	Q87Z30	Q87z30 pseudomonas
38	34	69.4	262	13	Q90676	Q90676 gallus gall
39	34	69.4	287	13	Q90376	Q90376 columba liv
40	34	69.4	292	16	Q8D7E2	Q8d7e2 vibrio vuln
41	34	69.4	297	16	Q87HX6	Q87hx6 vibrio para
42	34	69.4	299	12	Q91FR3	Q91fr3 chilo iride
43	34	69.4	303	13	Q8AVY9	Q8avy9 xenopus lae
44	34	69.4	304	13	Q8AVK9	Q8avk9 xenopus lae
45	34	69.4	306	13	Q8AXS2	Q8axs2 oryzias lat

ALIGNMENTS

RESULT 1
Q923W5
ID Q923W5 PRELIMINARY; PRT; 91 AA.
AC Q923W5;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Bcl2-beta (Fragment).

```
GN   BCL2.
OS   Peromyscus polionotus (Oldfield mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
OC   Peromyscus.
OX   NCBI_TaxID=42413;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Prince K.L., Vrana P.B., Dewey M.J.;
RL   Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF389111; AAK72004.1; -.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER      91     91
SQ   SEQUENCE   91 AA;  9672 MW;  59ADC8BCABADF75F CRC64;

  Query Match             100.0%;  Score 49;  DB 11;  Length 91;
  Best Local Similarity   100.0%;  Pred. No. 0.088;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         72 FSRRYRRDF 80


RESULT 2
Q923W6
ID   Q923W6      PRELIMINARY;      PRT;    91 AA.
AC   Q923W6;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl2-beta (Fragment).
GN   BCL2.
OS   Peromyscus maniculatus (Deer mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
OC   Peromyscus.
OX   NCBI_TaxID=10042;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Prince K.L., Vrana P.B., Dewey M.J.;
RL   Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF389110; AAK72002.1; -.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01259; BH3; 1.
FT   NON_TER       1      1
FT   NON_TER      91     91
SQ   SEQUENCE   91 AA;  9696 MW;  59ADCCB8ABA9F35F CRC64;

  Query Match             100.0%;  Score 49;  DB 11;  Length 91;
  Best Local Similarity   100.0%;  Pred. No. 0.088;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         72 FSRRYRRDF 80


RESULT 3
Q7YRB6
ID   Q7YRB6      PRELIMINARY;      PRT;   153 AA.
AC   Q7YRB6;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl-2 (Fragment).
GN   BCL-2.
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Sano J., Yamazaki J., Kano R., Hasegawa A.;
RT   "Molecular cloning of canine Bcl-2 family.";
RL   Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB116145; BAC81344.1; -.
FT   NON_TER       1      1
SQ   SEQUENCE   153 AA;  17410 MW;  11495CB35B93FC45 CRC64;

  Query Match             100.0%;  Score 49;  DB 6;  Length 153;
  Best Local Similarity   100.0%;  Pred. No. 0.15;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         18 FSRRYRRDF 26


RESULT 4
Q8MJ81
ID   Q8MJ81      PRELIMINARY;      PRT;   185 AA.
AC   Q8MJ81;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl2 protein (Fragment).
GN   BCL2.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
```

```
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Jersey;
RA   Krebs S., Medjugorac I.;
RT   "Partial genomic sequence and SNPs of the bovine bcl2 gene.";
RL   Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF515848; AAN03862.1; -.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
FT   NON_TER     185     185
SQ   SEQUENCE   185 AA;  20260 MW;  8FA829629553C65F CRC64;

  Query Match             100.0%;  Score 49;  DB 6;  Length 185;
  Best Local Similarity   100.0%;  Pred. No. 0.18;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db         94 FSRRYRRDF 102


RESULT 5
Q8C5P0
ID   Q8C5P0      PRELIMINARY;      PRT;   199 AA.
AC   Q8C5P0;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   B-cell leukemia/lymphoma 2.
GN   BCL2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK077913; BAC37060.1; -.
DR   MGD; MGI:88138; Bcl2.
DR   GO; GO:0005829; C:cytosol; IDA.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; IDA.
DR   GO; GO:0005515; F:protein binding; IPI.
DR   GO; GO:0006915; P:apoptosis; IDA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   199 AA;  22247 MW;  F13C803A9D461235 CRC64;

  Query Match             100.0%;  Score 49;  DB 11;  Length 199;
  Best Local Similarity   100.0%;  Pred. No. 0.2;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109


RESULT 6
Q8I008
ID   Q8I008      PRELIMINARY;      PRT;   235 AA.
AC   Q8I008;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl-2 protein.
GN   BCL-2.
OS   Felis silvestris catus (Cat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Yamazaki J., Sano J., Kano R., Hasegawa A.;
RT   "Felis catus mRNA for bcl-2, complete cds.";
RL   Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB096611; BAC24136.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
```

```
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   235 AA;  25621 MW;  2320B57C96B64548 CRC64;

  Query Match             100.0%;  Score 49;  DB 6;  Length 235;
  Best Local Similarity   100.0%;  Pred. No. 0.23;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        100 FSRRYRRDF 108


RESULT 7
Q923R6
ID   Q923R6      PRELIMINARY;      PRT;   236 AA.
AC   Q923R6;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   B-cell lymphoma protein 2.
GN   BCL2.
OS   Cricetulus longicaudatus (Long-tailed hamster) (Chinese hamster).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC   Cricetulus.
OX   NCBI_TaxID=10030;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Lai D.Z., Chen W., Wang H.T.;
RT   "Construction of a robust CHO cell line for biopharmaceutical use.";
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF404339; AAK92201.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   236 AA;  26500 MW;  BEDF052EF32CA8B8 CRC64;

  Query Match             100.0%;  Score 49;  DB 11;  Length 236;
  Best Local Similarity   100.0%;  Pred. No. 0.23;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109


RESULT 8
Q8BQK4
ID   Q8BQK4      PRELIMINARY;      PRT;   236 AA.
AC   Q8BQK4;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   B-cell leukemia/lymphoma 2.
GN   BCL2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Body;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK049473; BAC33767.1; -.
DR   MGD; MGI:88138; Bcl2.
DR   GO; GO:0005829; C:cytosol; IDA.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; IDA.
DR   GO; GO:0005515; F:protein binding; IPI.
DR   GO; GO:0006915; P:apoptosis; IDA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   InterPro; IPR004725; Bcl2_reg.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   TIGRFAMs; TIGR00865; bcl-2; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01259; BH3; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   236 AA;  26437 MW;  B726BFFA3AA1C718 CRC64;

  Query Match             100.0%;  Score 49;  DB 11;  Length 236;
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Best Local Similarity 100.0%; Pred. No. 0.23;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109
```

RESULT 9
Q7TSN8
ID Q7TSN8 PRELIMINARY; PRT; 236 AA.
AC Q7TSN8;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Bcl2-like protein.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Wistar;
RA Tanaka T., Nangaku M.;
RT "Rat Bcl2-like protein.";
RL Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AF512835; AAP47159.1; -.
SQ SEQUENCE 236 AA; 26407 MW; 80FDCFE78C735092 CRC64;

Query Match 100.0%; Score 49; DB 11; Length 236;
Best Local Similarity 100.0%; Pred. No. 0.23;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 FSRRYRRDF 9
              |||||||||
Db        101 FSRRYRRDF 109
```

Search completed: March 30, 2004, 15:40:16
Job time : 35 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:21:50 ; Search time 48 Seconds
(without alignments)
52.978 Million cell updates/sec

Title: US-09-622-058-3
Perfect score: 48
Sequence: 1 FETRFRRTF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	48	100.0	9	2	AAY29887	Aay29887 RY domain
2	48	100.0	27	3	AAB37024	Aab37024 Bcl2 poly
3	48	100.0	168	2	AAW36048	Aaw36048 Mouse bcl
4	48	100.0	192	2	AAW97394	Aaw97394 Mammalian
5	48	100.0	192	2	AAW97393	Aaw97393 Protein s
6	48	100.0	192	2	AAY05533	Aay05533 Mouse Bcl
7	48	100.0	193	2	AAW36047	Aaw36047 Human bcl
8	48	100.0	193	2	AAW61392	Aaw61392 Human bcl
9	48	100.0	193	2	AAW61391	Aaw61391 Rat bcl-y

10	48	100.0	193	2	AAW97392	Aaw97392 The human
11	48	100.0	193	2	AAW97391	Aaw97391 The rat b
12	48	100.0	193	2	AAY05530	Aay05530 Human Bcl
13	48	100.0	193	2	AAY05532	Aay05532 Human Bcl
14	48	100.0	193	2	AAY05531	Aay05531 Mouse Bcl
15	48	100.0	193	7	ADD46742	Add46742 Human Pro
16	48	100.0	365	2	AAW59884	Aaw59884 Amino aci
17	48	100.0	365	5	ABG95556	Abg95556 Human nov
18	48	100.0	365	6	ABO34750	Abo34750 Fragment
19	42	87.5	190	5	AAO18223	Aao18223 Human Bcl
20	39	81.2	587	4	ABB70544	Abb70544 Drosophil
21	37	77.1	635	4	AAE12822	Aae12822 Caenorhab
22	37	77.1	635	6	ABP96316	Abp96316 Caenorhab
23	36	75.0	534	2	AAW13273	Aaw13273 Rhodococc
24	36	75.0	534	2	AAW80800	Aaw80800 Rhodococc
25	35	72.9	242	4	AAU51405	Aau51405 Propionib
26	35	72.9	242	6	ABM47924	Abm47924 Propionib
27	34	70.8	9	2	AAY29885	Aay29885 RY domain
28	34	70.8	27	3	AAB37013	Aab37013 Bcl2 poly
29	34	70.8	27	3	AAB37012	Aab37012 Bcl2 poly
30	34	70.8	152	6	AAG79760	Aag79760 Bcl-XL. 4
31	34	70.8	170	2	AAR68888	Aar68888 Human thy
32	34	70.8	170	6	AAE37656	Aae37656 Bcl2 rela
33	34	70.8	185	4	ABB42045	Abb42045 Peptide #
34	34	70.8	185	4	AAM35847	Aam35847 Peptide #
35	34	70.8	185	4	ABB25656	Abb25656 Protein #
36	34	70.8	185	4	AAM75738	Aam75738 Human bon
37	34	70.8	185	4	AAM62926	Aam62926 Human bra
38	34	70.8	185	4	ABG57476	Abg57476 Human liv
39	34	70.8	185	5	ABG45220	Abg45220 Human pep
40	34	70.8	190	2	AAR68884	Aar68884 Chicken l
41	34	70.8	212	4	AAB20495	Aab20495 Human Bcl
42	34	70.8	212	4	AAG64285	Aag64285 Mutant bc
43	34	70.8	225	2	AAW19396	Aaw19396 "Deprenyl
44	34	70.8	233	2	AAR68887	Aar68887 Human thy
45	34	70.8	233	2	AAW05821	Aaw05821 Bcl-XL pr

ALIGNMENTS

RESULT 1
AAY29887
ID AAY29887 standard; peptide; 9 AA.
XX
AC AAY29887;
XX
DT 18-NOV-1999 (first entry)
XX
DE RY domain death inhibiting peptide Bcl-w.
XX
KW RY domain; cell death; apoptosis; inhibition; regulation; Bcl-2;
KW neurodegenerative disorder; cerebral stroke; myocardial infarction.
XX
OS Homo sapiens.
XX
PN WO9943701-A2.
XX
PD 02-SEP-1999.
XX
PF 16-FEB-1999; 99WO-IL000096.
XX
PR 24-FEB-1998; 98IL-00123429.
XX
PA (NSTN-) NST NEUROSURVIVAL TECHNOLOGIES LTD.
XX
PI Ziv I, Shirvan A;
XX
DR WPI; 1999-550858/46.
XX
PT New RY domain peptides, used for inhibiting cell death, particularly for
PT treating disorders, e.g. neurodegenerative disorders, cerebral strokes or
PT myocardial infarction.
XX
PS Claim 9; Page 23; 37pp; English.
XX
CC The present sequence represents a specifically claimed RY domain peptide
CC which inhibits cell death (apoptosis). The RY domain peptide can be used
CC for increasing the number of viable cells in a biological tissue or for
CC the enhancement of survival of biological cells. It can be used for
CC treating disorders caused by the inappropriate activation of apoptosis,
CC e.g. neurodegenerative disorders, cerebral strokes or myocardial
CC infarction
XX
SQ Sequence 9 AA;

  Query Match 100.0%; Score 48; DB 2; Length 9;
  Best Local Similarity 100.0%; Pred. No. 1.4e+06;
  Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
    |||||||||
Db 1 FETRFRRTF 9

RESULT 2
AAB37024
ID AAB37024 standard; peptide; 27 AA.
XX
AC AAB37024;
XX
DT 28-FEB-2001 (first entry)
XX
DE Bcl2 polypeptide BH3 domain peptide #24.
XX
KW Cytostatic; neuroprotective; anti-HIV; virucide; cerebroprotective;
KW cardiant; Bcl-2 superfamily; BH3 domain; cell death agonist; Bad;
KW apoptosis modulation; B cell lymphoma/leukemia 2; cancer; prostate;
KW colorectal; gastric; non-small lung; renal; thyroid; neuroblastoma;
KW melanoma; lymphocytic leukemia; neurodegenerative disorder; AIDS; stroke;
KW myocardial infarction.
XX
OS Homo sapiens.
XX

PN WO200059526-A1.
XX
PD 12-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009352.
XX
PR 07-APR-1999; 99US-0128202P.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Huang Z, Wang J, Zhang Z, Shan S, Lu Z;
XX
DR WPI; 2000-679325/66.
XX
PT New peptide conjugates for modulating apoptosis or for inhibiting B cell
PT lymphoma/leukemia 2 (Bcl-2) function, especially useful for treating
PT neurodegenerative disorders, stroke, or cancer.
XX
PS Claim 18; Page 18; 74pp; English.
XX
CC The invention relates to a peptide conjugate having the formula: (R-X)n-
CC peptide where n = 1-10; X = C=O, when the R-X group is attached to the N-
CC terminus of the peptide, or a side chain of the peptide where the
CC functional group of the side chain is NH2 or OH; or X = O or NH, when the
CC R-X group is attached to the C-terminus of the peptide, or a side chain
CC of the peptide, where the side chain functional group is COOH or CONH2;
CC and R = 2-18C alkyl or alkoxy, 2-14C alkylenyl containing one or two
CC double bonds, cyclobutyl, cyclopentyl, cyclohexyl optionally
CC monosubstituted with a 1-5C straight or branched chain alkyl group,
CC phenyl optionally monosubstituted with a 1-5C straight or branched chain
CC alkyl group, or benzyl. The peptides AAB37001-B37058 represent examples
CC of the peptide portion of the conjugate. The peptides represent analogues
CC of a Bcl-2 superfamily polypeptide corresponding to amino acids 72-97 of
CC the BH3 domain of the cell death agonist Bad. The peptide conjugate is
CC useful for modulating apoptosis in the cells of a subject, or for
CC reversing B cell lymphoma/leukemia 2 (Bcl-2)-mediated blockage of
CC apoptosis in cancer cells. It is also useful for inhibiting Bcl-2
CC function. In particular, the peptide conjugate is useful for treating a
CC subject afflicted with a cancer characterized by cancer cells that
CC express Bcl-2. The cancer includes prostate, colorectal, gastric, non-
CC small lung, renal or thyroid cancers, neuroblastoma, melanoma, or acute
CC or chronic lymphocytic and non-lymphocytic leukemia. The peptide
CC conjugate is also useful for treating disorders characterized by
CC increased apoptosis, e.g. neurodegenerative disorders, acquired
CC immunodeficiency syndrome (AIDS), stroke or myocardial infarction
XX
SQ Sequence 27 AA;

  Query Match   100.0%; Score 48; DB 3; Length 27;
  Best Local Similarity 100.0%; Pred. No. 0.067;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   19 FETRFRRTF 27

RESULT 3
AAW36048
ID AAW36048 standard; protein; 168 AA.
XX
AC AAW36048;
XX
DT 22-APR-1998 (first entry)
XX
DE Mouse bcl-w protein.
XX
KW Bcl-w; apoptosis; bcl-2; cell survival; treatment; therapy; cancer;
KW diagnosis; degenerative disease.
XX
OS Mus sp.
XX
PN WO9735971-A1.
XX
PD 02-OCT-1997.
XX
PF 27-MAR-1997; 97WO-AU000199.
XX
PR 27-MAR-1996; 96AU-00008965.
XX
PA (AMRA-) AMRAD OPERATIONS PTY LTD.
XX
PI Cory S, Adams JM, Gibson LM, Holmgreen SP;
XX
DR WPI; 1997-489635/45.
DR N-PSDB; AAT96578.
XX
PT Nucleic acid encoding apoptosis related gene bcl-w - used to induce or
PT inhibit cell survival, e.g. for treatment of cancer and degenerative
PT diseases.
XX
PS Claim 6; Page 50-51; 86pp; English.
XX
CC This sequence represents a novel protein, bcl-w, encoded by the mouse bcl
CC -2 gene family. This gene promotes cell survival, so its modulation is
CC useful in treatment of cancer or auto-immune diseases, degenerative
CC diseases (e.g. stroke, Alzheimer's disease, myocardial infarct, muscular
CC degeneration, hypoxia, ischaemia, human immunodeficiency virus infection
CC or in cell transplants. Up-regulation of the gene can also be used to
CC modify cell lines cultured in vivo, e.g. to develop new lines, to
CC facilitate isolation of hybridomas and to increase survival of primary
CC explants during genetic modification. It can be used to produce
CC recombinant Bcl-w for therapy, diagnosis, antibody production or
CC screening of potential modulators
XX
SQ Sequence 168 AA;

  Query Match   100.0%; Score 48; DB 2; Length 168;
  Best Local Similarity 100.0%; Pred. No. 0.38;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   53 FETRFRRTF 61

RESULT 4
AAW97394
ID AAW97394 standard; protein; 192 AA.
XX
AC AAW97394;
XX
DT 20-MAY-1999 (first entry)
XX
DE Mammalian bcl-y protein.
XX
KW Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW multiple sclerosis; myocardial infarction; vitally induced cell death;
KW aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW premature cell death; cell death stimulator; prolonged cell life span;
KW Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS Mammalia.
XX
PN US5883229-A.
XX
PD 16-MAR-1999.
XX
PF 25-NOV-1997; 97US-00978523.
XX
PR 23-FEB-1996; 96US-0012201P.
PR 11-FEB-1997; 97US-00798897.
XX
PA (COCE-) COCENSYS INC.
XX
PI Guastella J;
XX
DR WPI; 1999-214150/18.
XX
PT Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT modulating programmed cell death.
XX
PS Claim 2; Col 19-22; 26pp; English.
XX
CC The present sequence represents a mammalian bcy-1 protein. The
CC specification describes rat bcl-y protein (Rbcl-y) and human bcl-y
CC protein (Hbcl-y). Rbcl-y and Hbcl-y are homologues of the bcl-2 protein
CC thought to be involved in programmed cell death (apoptosis and necrosis).
CC Rbcl-y and Hbcl-y proteins may be used to treat conditions associated
CC with a disruption of the cell death pathway. If they act as cell death
CC inhibitors, they may be used in therapies to treat subjects suffering
CC from: strokes, head trauma, Alzheimer's Disease, neural and muscular
CC degenerative diseases (especially multiple sclerosis), myocardial
CC infarction, vitally induced cell death, aging, spinal cord injuries and
CC amyotrophic lateral sclerosis- conditions where cells under go premature
CC cell death as a result of triggers which may or may not be apparent. They
CC may also be used in this way to develop cell lines which remain viable in
CC culture for an extended period. In contrast, if they act as cell death
CC stimulators, Rbcl-y and Hbcl-y may be used to treat conditions associated
CC with prolonged cell life span such as cancer (especially kaposi's sarcoma
CC and lung cancer) and auto/hyperimmune diseases. They may also be used to
CC cause cell death in, and hence control, parasites
XX
SQ Sequence 192 AA;

  Query Match   100.0%; Score 48; DB 2; Length 192;
  Best Local Similarity   100.0%; Pred. No. 0.43;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   52 FETRFRRTF 60

RESULT 5
AAW97393
ID AAW97393 standard; protein; 192 AA.
XX
AC AAW97393;
XX
DT 20-MAY-1999 (first entry)
XX
DE Protein sequence of the specification.
XX
KW Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW multiple sclerosis; myocardial infarction; vitally induced cell death;
KW aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW premature cell death; cell death stimulator; prolonged cell life span;
KW Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS Unidentified.
XX
PN US5883229-A.
XX
PD 16-MAR-1999.
XX
PF 25-NOV-1997; 97US-00978523.
XX
PR 23-FEB-1996; 96US-0012201P.
PR 11-FEB-1997; 97US-00798897.
XX
PA (COCE-) COCENSYS INC.
XX
PI Guastella J;
XX
DR WPI; 1999-214150/18.
XX
PT Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT modulating programmed cell death.
XX
PS Disclosure; Col 19-20; 26pp; English.
XX
CC The specification describes rat bcl-y protein (Rbcl-y) and human bcl-y
CC protein (Hbcl-y). Rbcl-y and Hbcl-y are homologues of the bcl-2 protein

CC thought to be involved in programmed cell death (apoptosis and necrosis).
CC Rbcl-y and Hbcl-y proteins may be used to treat conditions associated
CC with a disruption of the cell death pathway. If they act as cell death
CC inhibitors, they may be used in therapies to treat subjects suffering
CC from: strokes, head trauma, Alzheimer's Disease, neural and muscular
CC degenerative diseases (especially multiple sclerosis), myocardial
CC infarction, vitally induced cell death, aging, spinal cord injuries and
CC amyotrophic lateral sclerosis- conditions where cells under go premature
CC cell death as a result of triggers which may or may not be apparent. They
CC may also be used in this way to develop cell lines which remain viable in
CC culture for an extended period. In contrast, if they act as cell death
CC stimulators, Rbcl-y and Hbcl-y may be used to treat conditions associated
CC with prolonged cell life span such as cancer (especially kaposi's sarcoma
CC and lung cancer) and auto/hyperimmune diseases. They may also be used to
CC cause cell death in, and hence control, parasites
XX
SQ Sequence 192 AA;

Query Match 100.0%; Score 48; DB 2; Length 192;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
|||||||||
Db 52 FETRFRRTF 60

RESULT 6
AAY05533
ID AAY05533 standard; protein; 192 AA.
XX
AC AAY05533;
XX
DT 05-JUL-1999 (first entry)
XX
DE Mouse Bcl-w protein deritvative.
XX
KW Spermatogenesis; Bcl-3; Bcl-2; mouse; fertility; infertility;
KW animal model.
XX
OS Mus sp.
XX
PN WO9913710-A1.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-AU000764.
XX
PR 16-SEP-1997; 97AU-00009228.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Cory S, Adams J, Print C, Gibson L, Koentgen F;
XX
DR WPI; 1999-243890/20.
DR N-PSDB; AAX25135.
XX
PT An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT protein associated with Bcl-w.
XX
PS Disclosure; Page 39; 52pp; English.
XX
CC The present sequence is described of a derivative of mouse Bcl-w (see
CC also AAY05531), a pro-survival member of the Bcl-2 family that is widely
CC expressed and which is essential for spermatogenesis. The derivative
CC lacks the 24 N-terminal amino acids of Bcl-w. The invention relates
CC generally to a method of treatment and to an animal model for the
CC identification of molecules and genetic sequences useful for inducing or
CC reducing fertility of male animals. Methods are provided for the
CC treatment of infertility, or for reducing fertility, by modulating
CC spermatogenesis. An animal model carries a mutation is at least one
CC allele of the human or murine bcl-w gene (see AAX25132-35) or in a gene
CC associated with bcl-w. Such animals have disorganised seminferous tubules
CC and are substantially infertile, but possess no other major abnormalities
CC as determined by histological examination. They can be used to screen for
CC therapeutic molecules including genetic sequences capable of inducing,
CC enhancing or otherwise facilitating spermatogenesis in animals, or which
CC can induce infertility
XX
SQ Sequence 192 AA;

Query Match 100.0%; Score 48; DB 2; Length 192;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
|||||||||
Db 53 FETRFRRTF 61

RESULT 7
AAW36047
ID AAW36047 standard; protein; 193 AA.
XX
AC AAW36047;
XX
DT 22-APR-1998 (first entry)
XX
DE Human bcl-w protein.
XX
KW Bcl-w; apoptosis; bcl-2; cell survival; treatment; therapy; cancer;
KW diagnosis; degenerative disease.
XX
OS Homo sapiens.
XX
PN WO9735971-A1.
XX
PD 02-OCT-1997.
XX
PF 27-MAR-1997; 97WO-AU000199.
XX
PR 27-MAR-1996; 96AU-00008965.
XX
PA (AMRA-) AMRAD OPERATIONS PTY LTD.

XX
PI Cory S, Adams JM, Gibson LM, Holmgreen SP;
XX
DR WPI; 1997-489635/45.
DR N-PSDB; AAT96577.
XX
PT Nucleic acid encoding apoptosis related gene bcl-w - used to induce or
PT inhibit cell survival, e.g. for treatment of cancer and degenerative
PT diseases.
XX
PS Claim 6; Page 48; 86pp; English.
XX
CC This sequence represents a novel human protein, bcl-w, encoded by the bcl
CC -2 gene family and extracted from an adult brain library. This gene
CC promotes cell survival, so its modulation is useful in treatment of
CC cancer or auto-immune diseases, degenerative diseases (e.g. stroke,
CC Alzheimer's disease, myocardial infarct, muscular degeneration, hypoxia,
CC ischaemia, human immunodeficiency virus infection or in cell transplants.
CC Up-regulation of the gene can also be used to modify cell lines cultured
CC in vivo, e.g. to develop new lines, to facilitate isolation of hybridomas
CC and to increase survival of primary explants during genetic modification.
CC It can be used to produce recombinant Bcl-w for therapy, diagnosis,
CC antibody production or screening of potential modulators
XX
SQ Sequence 193 AA;

  Query Match   100.0%; Score 48; DB 2; Length 193;
  Best Local Similarity   100.0%; Pred. No. 0.43;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   53 FETRFRRTF 61

RESULT 8
AAW61392
ID AAW61392 standard; protein; 193 AA.
XX
AC AAW61392;
XX
DT 02-OCT-1998 (first entry)
XX
DE Human bcl-y protein.
XX
KW bcl-y; bcl-2; cell death pathway; apoptotic; apoptosis; human.
XX
OS Homo sapiens.
XX
PN US5789201-A.
XX
PD 04-AUG-1998.
XX
PF 11-FEB-1997; 97US-00798897.
XX
PR 23-FEB-1996; 96US-0012201P.
XX
PA (COCE-) COCENSYS INC.
XX
PI Guastella J;
XX
DR WPI; 1998-446079/38.
DR N-PSDB; AAV28334.
XX
PT Nucleic acids encoding B-cell lymphoma-y protein - useful for producing
PT recombinant protein for use in treating uncontrolled cell growth e.g.
PT cancers.
XX
PS Example; Column 17/18; 27pp; English.
XX
CC The mammalian bcl-y protein is a member of the bcl-2 family, components
CC in the cell death pathway. The bcl-2 family have both apoptotic activity
CC and the apoptosis blocking activity. bcl-y falls in the apoptosis
CC activity category. The recombinant protein may be used to prevent
CC uncontrolled cell growth, either by its direct administration to
CC recombinant genetic constructs to increase its expression in vivo. Also,
CC antisense constructs can be used in disorders where prevention of cell
CC death is desired
XX
SQ Sequence 193 AA;

  Query Match   100.0%; Score 48; DB 2; Length 193;
  Best Local Similarity   100.0%; Pred. No. 0.43;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   53 FETRFRRTF 61

RESULT 9
AAW61391
ID AAW61391 standard; protein; 193 AA.
XX
AC AAW61391;
XX
DT 02-OCT-1998 (first entry)
XX
DE Rat bcl-y protein.
XX
KW bcl-y; bcl-2; cell death pathway; apoptotic; apoptosis; rat.
XX
OS Rattus sp.
XX
PN US5789201-A.
XX
PD 04-AUG-1998.
XX
PF 11-FEB-1997; 97US-00798897.
XX
PR 23-FEB-1996; 96US-0012201P.
XX
PA (COCE-) COCENSYS INC.
XX

PI Guastella J;
XX
DR WPI; 1998-446079/38.
DR N-PSDB; AAV28333.
XX
PT Nucleic acids encoding B-cell lymphoma-y protein - useful for producing
PT recombinant protein for use in treating uncontrolled cell growth e.g.
PT cancers.
XX
PS Example; Fig 3A; 27pp; English.
XX
CC The mammalian bcl-y protein is a member of the bcl-2 family, components
CC in the cell death pathway. The bcl-2 family have both apoptotic activity
CC and the apoptosis blocking activity. bcl-y falls in the apoptosis
CC activity category. The recombinant protein may be used to prevent
CC uncontrolled cell growth, either by its direct administration to
CC recombinant genetic constructs to increase its expression in vivo. Also,
CC antisense constructs can be used in disorders where prevention of cell
CC death is desired
XX
SQ Sequence 193 AA;

  Query Match   100.0%; Score 48; DB 2; Length 193;
  Best Local Similarity   100.0%; Pred. No. 0.43;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   53 FETRFRRTF 61

RESULT 10
AAW97392
ID AAW97392 standard; protein; 193 AA.
XX
AC AAW97392;
XX
DT 20-MAY-1999 (first entry)
XX
DE The human bcl-y protein.
XX
KW Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;
KW head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW multiple sclerosis; myocardial infarction; vitally induced cell death;
KW aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW premature cell death; cell death stimulator; prolonged cell life span;
KW Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS Homo sapiens.
XX
PN US5883229-A.
XX
PD 16-MAR-1999.
XX
PF 25-NOV-1997; 97US-00978523.
XX
PR 23-FEB-1996; 96US-0012201P.
PR 11-FEB-1997; 97US-00798897.
XX
PA (COCE-) COCENSYS INC.
XX
PI Guastella J;
XX
DR WPI; 1999-214150/18.
DR N-PSDB; AAX15946.
XX
PT Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT modulating programmed cell death.
XX
PS Claim 1; Col 17-18; 26pp; English.
XX
CC The present sequence represents human bcl-y protein (Hbcl-y). The
CC specification also describes rat bcl-y protein (Rbcl-y). Rbcl-y and Hbcl-
CC y are homologues of the bcl-2 protein thought to be involved in
CC programmed cell death (apoptosis and necrosis). Rbcl-y and Hbcl-y
CC proteins may be used to treat conditions associated with a disruption of
CC the cell death pathway. If they act as cell death inhibitors, they may be
CC used in therapies to treat subjects suffering from: strokes, head trauma,
CC Alzheimer's Disease, neural and muscular degenerative diseases
CC (especially multiple sclerosis), myocardial infarction, vitally induced
CC cell death, aging, spinal cord injuries and amyotrophic lateral sclerosis
CC - conditions where cells under go premature cell death as a result of
CC triggers which may or may not be apparent. They may also be used in this
CC way to develop cell lines which remain viable in culture for an extended
CC period. In contrast, if they act as cell death stimulators, Rbcl-y and
CC Hbcl-y may be used to treat conditions associated with prolonged cell
CC life span such as cancer (especially kaposi's sarcoma and lung cancer)
CC and auto/hyperimmune diseases. They may also be used to cause cell death
CC in, and hence control, parasites
XX
SQ Sequence 193 AA;

  Query Match   100.0%; Score 48; DB 2; Length 193;
  Best Local Similarity   100.0%; Pred. No. 0.43;
  Matches   9; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 FETRFRRTF 9
              |||||||||
Db   53 FETRFRRTF 61

RESULT 11
AAW97391
ID AAW97391 standard; protein; 193 AA.
XX
AC AAW97391;
XX
DT 20-MAY-1999 (first entry)
XX
DE The rat bcl-y protein.
XX
KW Rat bcl-y protein; Rbcl-y; human bcl-y protein; Hbcl-y; bcl-2 homologue;
KW programmed cell death; apoptosis; necrosis; cell death inhibitor; stroke;

KW head trauma; Alzheimer's Disease; neural; muscular degenerative disease;
KW multiple sclerosis; myocardial infarction; vitally induced cell death;
KW aging; spinal cord injury; amyotrophic lateral sclerosis; cancer;
KW premature cell death; cell death stimulator; prolonged cell life span;
KW Kaposi's sarcoma; lung cancer; autoimmune; hyperimmune disease; parasite.
XX
OS Rattus sp.
XX
PN US5883229-A.
XX
PD 16-MAR-1999.
XX
PF 25-NOV-1997; 97US-00978523.
XX
PR 23-FEB-1996; 96US-0012201P.
PR 11-FEB-1997; 97US-00798897.
XX
PA (COCE-) COCENSYS INC.
XX
PI Guastella J;
XX
DR WPI; 1999-214150/18.
DR N-PSDB; AAX15945.
XX
PT Novel bcl-y homologues of the rat and human bcl-2 protein - useful for
PT modulating programmed cell death.
XX
PS Disclosure; Col 15-18; 26pp; English.
XX
CC The present sequence represents rat bcl-y protein (Rbcl-y). The
CC specification also describes human bcl-y protein (Hbcl-y). Rbcl-y and
CC Hbcl-y are homologues of the bcl-2 protein thought to be involved in
CC programmed cell death (apoptosis and necrosis). Rbcl-y and Hbcl-y
CC proteins may be used to treat conditions associated with a disruption of
CC the cell death pathway. If they act as cell death inhibitors, they may be
CC used in therapies to treat subjects suffering from: strokes, head trauma,
CC Alzheimer's Disease, neural and muscular degenerative diseases
CC (especially multiple sclerosis), myocardial infarction, vitally induced
CC cell death, aging, spinal cord injuries and amyotrophic lateral sclerosis
CC - conditions where cells under go premature cell death as a result of
CC triggers which may or may not be apparent. They may also be used in this
CC way to develop cell lines which remain viable in culture for an extended
CC period. In contrast, if they act as cell death stimulators, Rbcl-y and
CC Hbcl-y may be used to treat conditions associated with prolonged cell
CC life span such as cancer (especially kaposi's sarcoma and lung cancer)
CC and auto/hyperimmune diseases. They may also be used to cause cell death
CC in, and hence control, parasites
XX
SQ Sequence 193 AA;

Query Match 100.0%; Score 48; DB 2; Length 193;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
|||||||||
Db 53 FETRFRRTF 61

RESULT 12
AAY05530
ID AAY05530 standard; protein; 193 AA.
XX
AC AAY05530;
XX
DT 05-JUL-1999 (first entry)
XX
DE Human Bcl-w protein essential for spermatogenesis.
XX
KW Spermatogenesis; Bcl-3; Bcl-2; human; fertility; infertility;
KW animal model.
XX
OS Homo sapiens.
XX
PN WO9913710-A1.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-AU000764.
XX
PR 16-SEP-1997; 97AU-00009228.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Cory S, Adams J, Print C, Gibson L, Koentgen F;
XX
DR WPI; 1999-243890/20.
DR N-PSDB; AAX25132.
XX
PT An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT protein associated with Bcl-w.
XX
PS Claim 2; Page 33; 52pp; English.
XX
CC The present sequence is human Bcl-w, a pro-survival member of the Bcl-2
CC family which is widely expressed and which is essential for
CC spermatogenesis. The invention relates generally to a method of treatment
CC and to an animal model for the identification of molecules and genetic
CC sequences useful for inducing or reducing fertility of male animals.
CC Methods are provided for the treatment of infertility, or for reducing
CC fertility, by modulating spermatogenesis. An animal model carries a
CC mutation is at least one allele of the human or murine bcl-w gene (see
CC AAX25132-35) or in a gene associated with bcl-w. Such animals have
CC disorganised seminferous tubules and are substantially infertile, but
CC possess no other major abnormalities as determined by histological
CC examination. They can be used to screen for therapeutic molecules
CC including genetic sequences capable of inducing, enhancing or otherwise
CC facilitating spermatogenesis in animals, or which can induce infertility
XX
SQ Sequence 193 AA;

Query Match 100.0%; Score 48; DB 2; Length 193;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61
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RESULT 13
AAY05532
ID   AAY05532 standard; protein; 193 AA.
XX
AC   AAY05532;
XX
DT   05-JUL-1999  (first entry)
XX
DE   Human Bcl-w protein essential for spermatogenesis.
XX
KW   Spermatogenesis; Bcl-3; Bcl-2; human; fertility; infertility;
KW   animal model.
XX
OS   Homo sapiens.
XX
PN   WO9913710-A1.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-AU000764.
XX
PR   16-SEP-1997;   97AU-00009228.
XX
PA   (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI   Cory S,  Adams J,  Print C,  Gibson L,  Koentgen F;
XX
DR   WPI; 1999-243890/20.
DR   N-PSDB; AAX25134.
XX
PT   An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT   protein associated with Bcl-w.
XX
PS   Disclosure; Page 37; 52pp; English.
XX
CC   The present sequence is described of a derivative of human Bcl-w (see
CC   also AAY05530), a pro-survival member of the Bcl-2 family that is widely
CC   expressed and which is essential for spermatogenesis. The invention
CC   relates generally to a method of treatment and to an animal model for the
CC   identification of molecules and genetic sequences useful for inducing or
CC   reducing fertility of male animals. Methods are provided for the
CC   treatment of infertility, or for reducing fertility, by modulating
CC   spermatogenesis. An animal model carries a mutation is at least one
CC   allele of the human or murine bcl-w gene (see AAX25132-35) or in a gene
CC   associated with bcl-w. Such animals have disorganised seminferous tubules
CC   and are substantially infertile, but possess no other major abnormalities
CC   as determined by histological examination. They can be used to screen for
CC   therapeutic molecules including genetic sequences capable of inducing,
CC   enhancing or otherwise facilitating spermatogenesis in animals, or which
CC   can induce infertility
XX
```

```
SQ   Sequence 193 AA;

  Query Match             100.0%;  Score 48;  DB 2;  Length 193;
  Best Local Similarity   100.0%;  Pred. No. 0.43;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61
```

```
RESULT 14
AAY05531
ID   AAY05531 standard; protein; 193 AA.
XX
AC   AAY05531;
XX
DT   05-JUL-1999  (first entry)
XX
DE   Mouse Bcl-w protein essential for spermatogenesis.
XX
KW   Spermatogenesis; Bcl-3; Bcl-2; mouse; fertility; infertility;
KW   animal model.
XX
OS   Mus sp.
XX
PN   WO9913710-A1.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-AU000764.
XX
PR   16-SEP-1997;   97AU-00009228.
XX
PA   (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI   Cory S,  Adams J,  Print C,  Gibson L,  Koentgen F;
XX
DR   WPI; 1999-243890/20.
DR   N-PSDB; AAX25133.
XX
PT   An animal model exhibiting reduced levels of a Bcl-w protein and/or
PT   protein associated with Bcl-w.
XX
PS   Claim 2; Page 35; 52pp; English.
XX
CC   The present sequence is mouse Bcl-w, a pro-survival member of the Bcl-2
CC   family which is widely expressed and which is essential for
CC   spermatogenesis. The invention relates generally to a method of treatment
CC   and to an animal model for the identification of molecules and genetic
CC   sequences useful for inducing or reducing fertility of male animals.
CC   Methods are provided for the treatment of infertility, or for reducing
CC   fertility, by modulating spermatogenesis. An animal model carries a
CC   mutation is at least one allele of the human or murine bcl-w gene (see
CC   AAX25132-35) or in a gene associated with bcl-w. Such animals have
CC   disorganised seminferous tubules and are substantially infertile, but
CC   possess no other major abnormalities as determined by histological
```

CC examination. They can be used to screen for therapeutic molecules
CC including genetic sequences capable of inducing, enhancing or otherwise
CC facilitating spermatogenesis in animals, or which can induce infertility
XX
SQ Sequence 193 AA;

Query Match 100.0%; Score 48; DB 2; Length 193;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
|||||||||
Db 53 FETRFRRTF 61

RESULT 15
ADD46742
ID ADD46742 standard; protein; 193 AA.
XX
AC ADD46742;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human Protein Q92843, SEQ ID NO 12427.
XX
KW Human; pain; neuronal tissue; gene therapy;
KW spinal segmental nerve injury; chronic constriction injury; CCI;
KW spared nerve injury; SNI; Chung.
XX
OS Homo sapiens.
XX
PN WO2003016475-A2.
XX
PD 27-FEB-2003.
XX
PF 14-AUG-2002; 2002WO-US025765.
XX
PR 14-AUG-2001; 2001US-0312147P.
PR 01-NOV-2001; 2001US-0346382P.
PR 26-NOV-2001; 2001US-0333347P.
XX
PA (GEHO) GEN HOSPITAL CORP.
PA (FARB) BAYER AG.
XX
PI Woolf C, D'urso D, Befort K, Costigan M;
XX
DR WPI; 2003-268312/26.
DR GENBANK; Q92843.
XX
PT New composition comprising two or more isolated polypeptides, useful for
PT preparing a medicament for treating pain in an animal.
XX
PS Claim 1; Page; 1017pp; English.
XX
CC The invention discloses a composition comprising two or more isolated rat
CC or human polynucleotides or a polynucleotide which represents a fragment,
CC derivative or allelic variation of the nucleic acid sequence. Also
CC claimed are a vector comprising the novel polynucleotide, a host cell
CC comprising the vector, a method for identifying a nucleotide sequence
CC which is differentially regulated in an animal subjected to pain and a
CC kit to perform the method, an array, a method for identifying an agent
CC that increases or decreases the expression of the polynucleotide sequence
CC that is differentially expressed in neuronal tissue of a first animal
CC subjected to pain, a method for identifying a compound which regulates
CC the expression of a polynucleotide sequence which is differentially
CC expressed in an animal subjected to pain, a method for identifying a
CC compound that regulates the activity of one or more of the
CC polynucleotides, a method for producing a pharmaceutical composition, a
CC method for identifying a compound or small molecule that regulates the
CC activity in an animal of one or more of the polypeptides given in the
CC specification, a method for identifying a compound useful in treating
CC pain and a pharmaceutical composition comprising the one or more
CC polypeptides or their antibodies. The polynucleotide or the compound that
CC modulates its activity is useful for preparing a medicament for treating
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC therapy). The sequence presented is a human protein (shown in Table 2 of
CC the specification) which is differentially expressed during pain. Note:
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic form directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 193 AA;

Query Match 100.0%; Score 48; DB 7; Length 193;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
|||||||||
Db 53 FETRFRRTF 61

Search completed: March 30, 2004, 15:36:36
Job time : 49 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 30, 2004, 15:36:40 ; Search time 11.6667 Seconds
(without alignments)
74.205 Million cell updates/sec

Title: US-09-622-058-3
Perfect score: 48
Sequence: 1 FETRFRRTF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_78:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	38	79.2	657	2	S30288	C4-dicarboxylate s
2	37	77.1	692	2	A89606	protein F18G5.4 [i
3	36	75.0	194	2	B97211	uncharacterized co
4	36	75.0	783	2	T18421	hypothetical prote
5	34	70.8	170	2	I49055	bcl-x short - mous
6	34	70.8	176	2	I67435	gene bcl-xshort pr
7	34	70.8	190	2	A47537	apoptosis regulato
8	34	70.8	214	2	I49057	bcl-x transmembran
9	34	70.8	227	2	JE0203	apoptosis regulato
10	34	70.8	233	2	I49056	bcl-x long - mouse
11	34	70.8	233	2	B47537	apoptosis regulato
12	34	70.8	233	2	I67431	BCL-X-Long - rat
13	34	70.8	233	2	S51761	BCL-X protein - ra
14	34	70.8	815	2	S67675	probable membrane
15	33	68.8	91	2	T08665	hypothetical prote
16	33	68.8	185	2	E75311	hypothetical prote
17	33	68.8	282	2	T27449	hypothetical prote
18	33	68.8	324	1	A41786	mRNA-binding prote
19	33	68.8	508	2	F86458	unknown protein, 7
20	33	68.8	866	2	T23551	hypothetical prote
21	33	68.8	885	2	AG3350	alanine-tRNA ligas
22	33	68.8	887	2	AG2806	alanyl-tRNA synthe
23	33	68.8	900	2	F97585	alanyl-tRNA synthe
24	32	66.7	323	2	D82987	hypothetical prote
25	32	66.7	328	2	A83519	hypothetical prote
26	32	66.7	334	2	F82250	molybdenum cofacto
27	32	66.7	720	2	T51007	hypothetical prote
28	32	66.7	884	2	S77031	hypothetical prote
29	32	66.7	1253	2	T21065	hypothetical prote
30	31	64.6	109	2	D75538	conserved hypothet
31	31	64.6	117	2	C75091	hypothetical prote
32	31	64.6	287	2	S78143	ribosomal protein
33	31	64.6	295	2	AF1902	hypothetical prote
34	31	64.6	336	1	B38274	Y box-binding prot
35	31	64.6	345	2	S48389	probable membrane
36	31	64.6	352	2	H64172	hypothetical prote
37	31	64.6	370	2	B70223	conserved hypothet
38	31	64.6	403	2	A82503	multidrug resistan
39	31	64.6	403	2	H83783	hypothetical prote
40	31	64.6	491	2	T44858	probable hydroxyla
41	31	64.6	582	2	S53814	DEAD box protein -
42	31	64.6	611	2	H86507	oligopeptidase [im
43	31	64.6	611	2	E72114	oligoendopeptidase
44	31	64.6	822	2	S68210	chloride channel p
45	31	64.6	865	2	AC2236	two-component hybr

Search completed: March 30, 2004, 15:41:33
Job time : 12.6667 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 30, 2004, 15:31:30 ; Search time 8 Seconds
(without alignments)
58.579 Million cell updates/sec

Title: US-09-622-058-3
Perfect score: 48
Sequence: 1 FETRFRRTF 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	48	100.0	193	1	BCLW_HUMAN	Q92843 homo sapien
2	48	100.0	193	1	BCLW_MOUSE	P70345 mus musculu
3	38	79.2	657	1	DCTS_RHOCA	P37739 rhodobacter
4	37	77.1	692	1	YZN4_CAEEL	P54245 caenorhabdi
5	34	70.8	229	1	BCLX_CHICK	Q07816 gallus gall
6	34	70.8	233	1	BCLX_HUMAN	Q07817 homo sapien
7	34	70.8	233	1	BCLX_MOUSE	Q64373 mus musculu
8	34	70.8	233	1	BCLX_PIG	O77737 sus scrofa
9	34	70.8	233	1	BCLX_RAT	P53563 rattus norv
10	34	70.8	815	1	CC53_YEAST	Q12018 saccharomyc
11	33	68.8	228	1	AR1_XENLA	Q91827 xenopus lae
12	33	68.8	324	1	YB54_XENLA	P45441 xenopus lae
13	33	68.8	885	1	SYA_BRUME	Q8yhk8 brucella me
14	33	68.8	886	1	SYA_BARBA	P70865 bartonella
15	33	68.8	887	1	SYA_AGRT5	Q8ue87 agrobacteri
16	33	68.8	887	1	SYA_RHIME	P27866 rhizobium m
17	33	68.8	888	1	SYA_RHILO	Q98nq5 rhizobium l
18	32	66.7	200	1	RS4_BACAA	Q81kt2 bacillus an
19	32	66.7	200	1	RS4_BACCR	Q817a4 bacillus ce
20	32	66.7	334	1	MOAA_VIBCH	Q9kt81 vibrio chol
21	32	66.7	888	1	SYA_ZYMMO	Q9rnn8 zymomonas m
22	31	64.6	117	1	YB21_PYRAB	Q9uzm5 pyrococcus
23	31	64.6	334	1	MOAA_VIBVU	Q8d894 vibrio vuln
24	31	64.6	336	1	YB56_XENLA	P21574 xenopus lae
25	31	64.6	345	1	PANC_YEAST	P40459 saccharomyc
26	31	64.6	352	1	YGIF_HAEIN	P45267 haemophilus
27	31	64.6	877	1	SYA_THIFE	Q56273 thiobacillu
28	31	64.6	898	1	CLC2_HUMAN	P51788 homo sapien
29	31	64.6	898	1	CLC2_RABIT	P51789 oryctolagus
30	31	64.6	902	1	CLC2_CAVPO	Q9wu45 cavia porce
31	31	64.6	907	1	CLC2_RAT	P35525 rattus norv
32	31	64.6	908	1	CLC2_MOUSE	Q9r0a1 mus musculu
33	31	64.6	2567	1	M18B_HUMAN	Q8iug5 homo sapien
34	30	62.5	203	1	RL18_PYRHO	O59438 pyrococcus
35	30	62.5	204	1	AR11_XENLA	Q91828 xenopus lae
36	30	62.5	241	1	RT10_ARATH	P42797 arabidopsis
37	30	62.5	278	1	RHAS_ECOLI	P09377 escherichia
38	30	62.5	278	1	RHAS_SALTY	P27029 salmonella
39	30	62.5	293	1	VG11_BPB03	Q37892 bacteriopha
40	30	62.5	293	1	VG11_BPPH2	P04333 bacteriopha
41	30	62.5	336	1	RT09_CANAL	O94150 candida alb
42	30	62.5	352	1	MATK_SAXCE	Q33078 saxifraga c
43	30	62.5	389	1	PSD6_DROME	Q9v3g7 drosophila
44	30	62.5	433	1	YBBY_ECOLI	P77328 escherichia
45	30	62.5	454	1	NFM_PIG	P08552 sus scrofa

ALIGNMENTS

RESULT 1
BCLW_HUMAN
ID BCLW_HUMAN STANDARD; PRT; 193 AA.
AC Q92843;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Apoptosis regulator Bcl-W (Bcl-2-like 2 protein).
GN BCL2L2 OR BCLW OR KIAA0271.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96358615; PubMed=8761287;
RA Gibson L., Holmgreen S.P., Huang D.C., Bernard O., Copeland N.G.,
RA Jenkins N.A., Sutherland G.R., Baker E., Adams J.M., Cory S.;
RT "bcl-w, a novel member of the bcl-2 family, promotes cell survival.";
RL Oncogene 13:665-675(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=97191544; PubMed=9039502;

```
RA   Nagase T., Seki N., Ishikawa K.-I., Ohira M., Kawarabayasi Y.,
RA   Ohara O., Tanaka A., Kotani H., Miyajima N., Nomura N.;
RT   "Prediction of the coding sequences of unidentified human genes. VI.
RT   The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by
RT   analysis of cDNA clones from cell line KG-1 and brain.";
RL   DNA Res. 3:321-329(1996).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: Promotes cell survival.
CC   -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC   -!- TISSUE SPECIFICITY: Expressed in almost all myeloid cell lines and
CC       in a wide range of tissues, with highest levels in brain, colon,
CC       and salivary gland.
CC   -!- DOMAIN: BH4 domain seems to be involved in the anti-apoptotic
CC       function.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U59747; AAB09055.1; -.
DR   EMBL; D87461; BAA19666.1; -.
DR   EMBL; BC021198; AAH21198.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   Genew; HGNC:995; BCL2L2.
DR   MIM; 601931; -.
DR   GO; GO:0008189; F:apoptosis inhibitor activity; TAS.
DR   GO; GO:0006916; P:anti-apoptosis; TAS.
DR   GO; GO:0007283; P:spermatogenesis; TAS.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis.
FT   DOMAIN        9     29       BH4.
FT   DOMAIN       85    104       BH1.
FT   DOMAIN      136    151       BH2.
SQ   SEQUENCE   193 AA;  20774 MW;  3792243A50281761 CRC64;

  Query Match             100.0%;  Score 48;  DB 1;  Length 193;
  Best Local Similarity   100.0%;  Pred. No. 0.007;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61


RESULT 2
BCLW_MOUSE
ID   BCLW_MOUSE     STANDARD;      PRT;   193 AA.
AC   P70345;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-MAR-2004 (Rel. 43, Last annotation update)
DE   Apoptosis regulator Bcl-W (Bcl-2-like 2 protein).
GN   BCL2L2 OR BCLW.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96358615; PubMed=8761287;
RA   Gibson L., Holmgreen S.P., Huang D.C., Bernard O., Copeland N.G.,
RA   Jenkins N.A., Sutherland G.R., Baker E., Adams J.M., Cory S.;
RT   "bcl-w, a novel member of the bcl-2 family, promotes cell survival.";
RL   Oncogene 13:665-675(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/10J;
RX   MEDLINE=98160183; PubMed=9500547;
RA   Ross A.J., Waymire K.G., Moss J.E., Parlow A.F., Skinner M.K.,
RA   Russell L.D., Macgregor G.R.;
RT   "Testicular degeneration in Bclw-deficient mice.";
RL   Nat. Genet. 18:251-256(1998).
```

```
CC   -!- FUNCTION: Promotes cell survival.
CC   -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC   -!- TISSUE SPECIFICITY: Expressed in almost all myeloid cell lines and
CC       in a wide range of tissues, with highest levels in brain, colon,
CC       and salivary gland.
CC   -!- DOMAIN: BH4 domain seems to be involved in the anti-apoptotic
CC       function.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 1 (BH1) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 2 (BH2) domain.
CC   -!- SIMILARITY: Contains 1 Bcl-2 homology 4 (BH4) domain.
CC   -!- SIMILARITY: Belongs to the Bcl-2 family.
CC   ---------------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------------
DR   EMBL; U59746; AAB09056.1; -.
DR   EMBL; AF030769; AAB86430.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   MGD; MGI:108052; Bcl212.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
KW   Apoptosis.
FT   DOMAIN        9     29       BH4.
FT   DOMAIN       85    104       BH1.
FT   DOMAIN      136    151       BH2.
SQ   SEQUENCE   193 AA;  20790 MW;  36CA185F5945DFB4 CRC64;

  Query Match             100.0%;  Score 48;  DB 1;  Length 193;
  Best Local Similarity   100.0%;  Pred. No. 0.007;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61


Search completed: March 30, 2004, 15:38:23
Job time : 9 secs
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                                GenCore version 5.1.6
                          Copyright (c) 1993 - 2004  Compugen Ltd.

OM protein - protein search, using sw model

Run on:          March 30, 2004, 15:32:10 ; Search time 33 Seconds
                                            (without alignments)
                                            86.050 Million cell updates/sec

Title:           US-09-622-058-3
Perfect score:   48
Sequence:        1 FETRFRRTF 9

Scoring table:   BLOSUM62
                 Gapop 10.0 , Gapext 0.5

Searched:        1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters:      1017041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :        SPTREMBL_25:*
                 1:  sp_archea:*
                 2:  sp_bacteria:*
                 3:  sp_fungi:*
                 4:  sp_human:*
                 5:  sp_invertebrate:*
                 6:  sp_mammal:*
                 7:  sp_mhc:*
                 8:  sp_organelle:*
                 9:  sp_phage:*
                 10:  sp_plant:*
                 11:  sp_rodent:*
                 12:  sp_virus:*
                 13:  sp_vertebrate:*
                 14:  sp_unclassified:*
                 15:  sp_rvirus:*
                 16:  sp_bacteriap:*
                 17:  sp_archeap:*

      Pred. No. is the number of results predicted by chance to have a
      score greater than or equal to the score of the result being printed,
      and is derived by analysis of the total score distribution.

                                    SUMMARIES

                          %
Result                    Query
  No.    Score            Match Length DB  ID                      Description
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1	48	100.0	178	11	Q9CYW5	Q9cyw5 mus musculu
2	48	100.0	178	11	Q8CFR2	Q8cfr2 mus musculu
3	48	100.0	193	11	O88996	O88996 rattus norv
4	48	100.0	219	11	Q7TS60	Q7ts60 rattus norv
5	39	81.2	193	11	Q8CGL4	Q8cgl4 mus musculu
6	39	81.2	587	5	Q9VQ86	Q9vq86 drosophila
7	36	75.0	194	16	Q97G46	Q97g46 clostridium
8	36	75.0	524	1	Q8U4T9	Q8u4t9 halobacteri
9	36	75.0	607	10	Q9LU79	Q9lu79 arabidopsis
10	36	75.0	783	5	O77313	O77313 plasmodium
11	36	75.0	785	5	Q962M0	Q962m0 plasmodium
12	35	72.9	138	16	Q7WFZ0	Q7wfz0 bordetella
13	35	72.9	138	16	Q7W4G7	Q7w4g7 bordetella
14	35	72.9	347	16	Q7WFE5	Q7wfe5 bordetella
15	34	70.8	89	13	Q8UWJ1	Q8uwj1 gallus gall
16	34	70.8	125	4	Q9H1R5	Q9h1r5 homo sapien
17	34	70.8	170	11	Q9WUI5	Q9wui5 rattus norv
18	34	70.8	180	6	Q9BDX7	Q9bdx7 bos taurus
19	34	70.8	180	6	Q9BDD5	Q9bdd5 bos taurus
20	34	70.8	188	4	Q9H1R6	Q9h1r6 homo sapien
21	34	70.8	188	11	Q9QWX2	Q9qwx2 mus musculu
22	34	70.8	217	11	Q99N35	Q99n35 mus musculu
23	34	70.8	219	11	Q99N36	Q99n36 mus musculu
24	34	70.8	233	6	Q9N1A2	Q9n1a2 sus scrofa
25	34	70.8	233	6	Q9MZS7	Q9mzs7 ovis aries
26	34	70.8	233	6	Q8SQ42	Q8sq42 felis silve
27	34	70.8	233	6	Q9MYW4	Q9myw4 oryctolagus
28	34	70.8	233	11	O35844	O35844 mus musculu
29	34	70.8	235	11	O35843	O35843 mus musculu
30	34	70.8	284	11	Q7TS62	Q7ts62 rattus norv
31	34	70.8	580	13	Q9IA94	Q9ia94 carassius a
32	34	70.8	718	11	Q7TNW2	Q7tnw2 cricetulus
33	34	70.8	1145	16	Q9CM06	Q9cm06 pasteurella
34	33	68.8	144	16	Q9KY10	Q9ky10 streptomyce
35	33	68.8	185	16	Q9RSI0	Q9rsi0 deinococcus
36	33	68.8	209	13	Q8AYE6	Q8aye6 xenopus lae
37	33	68.8	237	5	Q8SZN4	Q8szn4 drosophila
38	33	68.8	255	10	Q84WF5	Q84wf5 arabidopsis
39	33	68.8	282	5	Q9XVY2	Q9xvy2 caenorhabdi
40	33	68.8	457	12	Q8BCV0	Q8bcv0 human cytom
41	33	68.8	457	12	Q8BCU7	Q8bcu7 human cytom
42	33	68.8	457	12	Q8BCT7	Q8bct7 human cytom
43	33	68.8	464	12	Q8AYZ5	Q8ayz5 human cytom
44	33	68.8	472	12	Q8BCV1	Q8bcv1 human cytom
45	33	68.8	508	10	Q9C804	Q9c804 arabidopsis

ALIGNMENTS

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RESULT 1
Q9CYW5
ID   Q9CYW5       PRELIMINARY;      PRT;   178 AA.
AC   Q9CYW5;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Bcl2-like 2.
GN   BCL2L2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AK013244; BAB28740.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   MGD; MGI:108052; Bcl2l2.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   178 AA;  19147 MW;  E2D4C3F79528E9D7 CRC64;

  Query Match           100.0%;  Score 48;  DB 11;  Length 178;
  Best Local Similarity  100.0%;  Pred. No. 0.046;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61
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RESULT 2
Q8CFR2
ID   Q8CFR2      PRELIMINARY;      PRT;   178 AA.
AC   Q8CFR2;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl2-like 2.
GN   BCL2L2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Eye;
RA   Strausberg R.;
RL   Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC040369; AAH40369.1; -.
DR   MGD; MGI:108052; Bcl212.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   178 AA;  19119 MW;  E2C3F3F79528E9D7 CRC64;

  Query Match           100.0%;  Score 48;  DB 11;  Length 178;
  Best Local Similarity  100.0%;  Pred. No. 0.046;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61


RESULT 3
O88996
ID   O88996      PRELIMINARY;      PRT;   193 AA.
AC   O88996;
DT   01-NOV-1998 (TrEMBLrel. 08, Created)
DT   01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Bcl-w.
GN   BCL-W.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley; TISSUE=Brain;
RX   MEDLINE=99292146; PubMed=10366024;
RA   Hamner S., Skoglosa Y., Lindholm D.;
RT   "Differential expression of bcl-w and bcl-x messenger RNA in the
RT   developing and adult rat nervous system.";
RL   Neuroscience 91:673-684(1999).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley;
RX   MEDLINE=22672518; PubMed=12787069;
RA   Itoh T., Itoh A., Pleasure D.;
RT   "Bcl-2-related protein family gene expression during oligodendroglial
RT   differentiation.";
RL   J. Neurochem. 85:1500-1512(2003).
DR   EMBL; AF096291; AAC64200.1; -.
DR   EMBL; AY185098; AAO64468.1; -.
DR   HSSP; Q07817; 1MAZ.
DR   GO; GO:0016329; F:apoptosis regulator activity; IEA.
DR   GO; GO:0006915; P:apoptosis; IEA.
DR   InterPro; IPR000712; Bcl2_BH.
DR   InterPro; IPR003093; Bcl2_BH4.
DR   InterPro; IPR002475; BCL2_family.
DR   Pfam; PF00452; Bcl-2; 1.
DR   Pfam; PF02180; BH4; 1.
DR   SMART; SM00337; BCL; 1.
DR   SMART; SM00265; BH4; 1.
DR   PROSITE; PS50062; BCL2_FAMILY; 1.
DR   PROSITE; PS01080; BH1; 1.
DR   PROSITE; PS01258; BH2; 1.
DR   PROSITE; PS01260; BH4_1; 1.
DR   PROSITE; PS50063; BH4_2; 1.
SQ   SEQUENCE   193 AA;  20820 MW;  36D6742F4529AFB4 CRC64;

  Query Match           100.0%;  Score 48;  DB 11;  Length 193;
  Best Local Similarity  100.0%;  Pred. No. 0.05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FETRFRRTF 9
              |||||||||
Db         53 FETRFRRTF 61


RESULT 4
Q7TS60
ID   Q7TS60      PRELIMINARY;      PRT;   219 AA.
AC   Q7TS60;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   BCL-WEL.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
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RC STRAIN=Sprague-Dawley;
RX MEDLINE=22672518; PubMed=12787069;
RA Itoh T., Itoh A., Pleasure D.;
RT "Bcl-2-related protein family gene expression during oligodendroglial
RT differentiation.";
RL J. Neurochem. 85:1500-1512(2003).
DR EMBL; AY185100; AAO64470.1; -.
SQ SEQUENCE 219 AA; 23720 MW; 30E36041BC1DC66F CRC64;

Query Match 100.0%; Score 48; DB 11; Length 219;
Best Local Similarity 100.0%; Pred. No. 0.057;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FETRFRRTF 9
|||||||||
Db 79 FETRFRRTF 87

Search completed: March 30, 2004, 15:40:17
Job time : 34 secs